

Limes Scythiae

Topographical and stratigraphical
research on the late Roman fortifications
on the Lower Danube

C. Scorpan

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For my son Alex

ABBREVIATIONS

AA	Archäologischer Anzeiger
Acta Arch.	Acta Archaeologica, Budapest
Actes	Actes du IX ^e Congrès international d'études sur les frontières romaines (Mamaia 1972); București, Köln, Wien 1974
AEM	Archäologisch-epigraphische Mitteilungen aus Österreich-Ungarn, Wien
AJA	American Journal of Archaeology
AIESEE	Bulletin de l'Association Internationale d'Études du Sud-Est Européen
AISC	Anuarul Institutului de studii clasice, Cluj-Sibiu. (Year-Book of the Institute of Classical Studies)
AMN	Acta Musei Napocensis, Cluj
ARMSI	Academia Română. Memoriile secției istorice. (The Romanian Academy. Memoirs of the Historical Section)
AUB	Analele Universității București (Annals of the University of Bucarest)
BCMI	Buletinul Comisiunii Monumentelor Istorice (Bulletin of the Historical Monuments Commission)
BMI	Buletinul Monumentelor Istorice
BSNR	Buletinul Societății Numismatice Române (Bulletin of the Romanian Numismatic Society)
Capidava	Capidava (archaeological monograph) I, 1958
CIL	Corpus Inscriptionum Latinarum
CIG	Corpus Inscriptionum Graecorum
Dacia	Dacia. Revue d'archéologie et d'histoire ancienne
DID	Din istoria Dobrogei, vol. I, 1965; vol. II, 1968 (From the Dobruja History)
Diss Pann	Dissertationes Pannonicae
ED	Ephemeris Dacoromana, Buc., Roma, 1923-1945
Fontes I	Izvoare privind istoria României, vol. I, 1964 (Sources on the History of Romania)
Fontes II	Fontes historiae Daco-Romanae, vol. II, 1970
FHG	Fragmenta Historicorum Graecorum
Histria I	Histria, I (archaeological monograph) ed. Em. Condurachi, Buc., 1954
Histria II	C. Preda, H. Nubar, Histria, vol. III, Descoperirile monetare, Buc., 1973 (Numismatic Discoveries)
Izvestiia-Sofia	Bulletin de l'Institut Archéologique Bulgare.
IGB	Inscriptiones Graecae in Bulgaria repertae, ed. C. Mihailov, Sofia, 1956
ILS	Inscriptiones Latinae selectae, ed. H. Dessau
JHS	The Journal of Hellenic Studies, London
JRS	The Journal of Roman Studies, London

Klio	Klio. Beiträge zur alter Geschichte, Berlin
Materiale	Materiale și cercetări arheologice, București (Archaeological Research and Materials)
Pontica	Review of archaeology, ed. the Archaeological Museum of Constantza
Peuce	Review of the Tulcea Museum
RE	Real-Encyclopädie der Klassischen Altertumswissenschaft (Pauly-Wissowa)
RESEE	Revue des études sud-est européennes, București
RIR	Revista istorică română. București (Romanian Historical Review)
RMM	Revista muzeelor și monumentelor. București (Review of Museums and Monuments)
RRH	Revue Roumain d'Histoire
SCIV	Studii și cercetări de istorie veche, Buc. (Studies and Research in Ancient History)
SCIVA	Studii și cercetări de istorie veche și arheologie, Buc.
SCN	Studii și cercetări de numismatică (Studies and Research in Numismatics)
SHA	Scriptores Historiae Augustae
SCS Cluj	Studii și cercetări științifice, Cluj (Scientific Studies and Research)
SCS Iași	Studii și cercetări științifice, Iași
St. Cl.	Studii Clasice, București (Classical Studies)
Studien	Studien zu den Militärgrenzen Roms, Köln, Graz, 1967
Ulmetum	V. Pârvan, Ulmetum I-III, Buc., 1912-1915
TIR	Tabula Imperii Romanae, 35, 1969

BIBLIOGRAPHY

Actes du IX^e Congrès international d'études sur les frontières romaines, Mamaia, 6-13 Sept. 1972; Buc., Köln, Wien, 1974.

A. Aricescu, Quelques précisions sur la carte de la Scythia Minor, Dacia, NS, 14, 1970.

A. Aricescu, Armata în Dobrogea romană, Buc., 1977.

I. Atanassova-Georgieva, Le quadriburgium de la forteresse Castra Martis en Dacia Ripensis, in Actes.

I. Barnea, Date noi despre Axiopolis, SCIV, 1, 1960.

I. Barnea, Contributions to Dobruja History under Anastasius I, Dacia, NS, 4, 1960.

I. Barnea, Themistios despre Scythia Minor, SCIV, 4, 1967.

I. Barnea, O casă romană tîrzie de la Dinogetia, SCIV, 2, 1969.

I. Barnea, L'incendie de la cité de Dinogetia au VI^e siècle, Dacia, NS, 10, 1966.

I. Barnea, Dinogetia et Noviodunum, deux villes byzantines du Bas-Danube, RESEE, 3, 1971.

I. Barnea, Les villes de la Scythia Minor au cours des VI^e-VII^e siècles, Bulletin AIESEE, 2, 1972.

I. Barnea, Gh. Stefan, Le limes scythicus des origines à la fin de l'antiquité, Actes.

N. H. Baynes, Three Notes on the Reforms of Diocletian and Constantine, JRS, 15, 1925.

D. van Berchem, L'armée de Dioclétien et la réforme constantinienne, Paris, 1952.

V. Beșevliev, Les cités antiques en Mésie et en Thrace et leur sort à l'époque du Haut Moyen Age, Études Balkaniques, Sofia, 5, 1966.

S. N. Bobcev, Le parement arasée dans les constructions romaines et byzantines de la première période, Izvestiia-Sofia, 24, 1961.

B. Böttger, Die Importkeramik aus dem Spätantiken Donaulimeskastell Iatrus, Actes.

Ioana Bogdan Cătănciu, Monica Mărgineanu-Cîrstoiu, Considerații asupra caracterului ultimei locuiri în Civitas Tropaeum, RMM, 2, 1975.

Maria Coja, Cercetări noi în așezarea geto-romană de la Capul Dolojman-Argamum, BMI, 3, 1972.

- R. G. Collingwood, Ian Richmond, The Archaeology of Roman Britain, London, 1969.
- Em. Condurachi, Histria à l'époque du Bas-Empire d'après les dernières fouilles archéologiques, Dacia, NS, 1, 1957.
- Em. Condurachi, Neue Probleme und Ergebnisse der Limes-Forschung in Scythia Minor, Studien.
- Em. Condurachi, Les conditions politiques au Bas-Danube et l'organisation du limes romain, Roman Frontier Studies, Tel-Aviv, 1971.
- The Congress of Roman Frontier Studies, 1949, Durham, 1952.
- A. von Domaszewski, Die Principia des römischen Lagers, in NHJ, 9, 1899.
- R. Fellmann, Die Principia des Legionslagers Vindonissa und das Zentralgebäude des Römischen Lager und Kastele, Brug, 1958.
- R. Fellmann, Le "Camp de Dioclétien" à Palmyre et l'architecture militaire du Bas-Empire, in Mélanges d'histoire ancienne et d'archéologie offert à Paul Collart, Cahiers d'archéologie Romande, 5, Lausanne, 1976.
- Gr. Florescu and R. Florescu, Capidava (monograph), I, Buc., 1958.
- Fontes Historiae Dacoromanae, II, Buc., 1970.
- G. Forni, Il reclutamento dalle legioni da Augusto a Diocleziano, Milano-Roma, 1953.
- G. Froni, Limes, in Dizionario Epigrafico di Antichità Romane, IV, fasc, 34-40, 40, Roma, 1959-1962.
- S. S. Frere, Britannia. A History of Roman Britain, London, 1967.
- M. Gielkowski, Le temple palmyrénien, Warszawa, 1973.
- M. Gichon, Excavations at Me'ad Tamar-"Tamara" 1973-65, Preliminary Report, in Saalburg-Jahrbuch, 33, 1976.
- M. Gichon, The Origin of the Limes Palestinae and the Major Phases in its Development, in Studien.
- N. Gostar, Monumente epigrafice inedite din lapidarul Muzeului regional de arheologie Dobrogea, in St. Cl., 5, 1963.
- M. Grant, The Army of the Caesars, London, 1974.
- R. Grosse, Römische Militärgeschichte von Gallienus bis zum Beginn der byzantinischen Themenverfassung, Berlin, 1920.
- N. Gudea, Befestigungen am Banater Donau-Limes aus der Zeit der Tetrarchie, Actes.
- Histria, I (ed. Em. Condurachi) (monograph), Buc., 1954.
- Histria, III (C. Preda, H. Nubar), Descoperiri monetare, Buc., 1973.
- T. Ivanov, Die letzten Ausgrabungen des Römischen und Frühbyzantinischen Donau-Limes in der UR Bulgarien, Actes.
- Izvoare privind istoria României, I, Buc. 1964 (Fontes I).

- A. H. M. Jones, The Later Roman Empire, Oxford, 1964.
- VI. Kondić, Ergebnisse der neuen Forschungen auf dem obermoesischen Donaulmes, Actes.
- P. Lemerle, Invasions et migrations dans les Balkans depuis la fin de l'époque romaine jusqu'au VIII^e siècle, in Revue historique, 211, Paris, 1954.
- F. Lot, La fin du monde antique et le début du Moyen-Âge, Paris, 1927.
- K. Majewski, Recherches archéologiques de Novae en Bulgarie, in Quintus Congressus internationalis limitis Romani Studiorum, Zagreb, 1963.
- I. Nestor, La pénétration des slaves dans la péninsule balkanique et la Grèce Continentale, RESEE, 1-2, 1963.
- H. Nubar, Monede bizantine de la începutul sec. al VII-lea și sfârșitul cetății Histria, SCN, 3, 1960.
- R. Ocheșanu, A. Dumitrașcu, Un texaur de la Theodosius I descoperit la Medgidia, Pontica, 5, 1972.
- V. Pârvan, Salsovia, Buc., 1906.
- V. Pârvan, Cetatea Tropaeum: considerații istorice, (BCMI, 4, 1911).
- V. Pârvan, Cetatea Ulmetum, I, II, III, (ARMSI, ser. II, vol. 34, 36, 37, Buc., 1912-1915).
- V. Pârvan, Dacia: Civilizațiile antice din țările carpato-danubienne, Buc., 1967.
- V. Pârvan, Începuturile vieții romane la gurile Dunării, Buc., 1974.
- V. Pârvan, Descoperiri nouă în Scythia Minor (ARMSI, ser. II, vol. 35, Buc., 1913).
- V. Pârvan, Zidul cetății Tomis, (ARMSI, ser. II, vol. 37, Buc., 1915).
- A. Petre, Quelques données archéologiques concernant la continuité de la population et de la culture romano-byzantine dans la Scythie Mineure aux VI^e et VII^e siècles de notre ère, Dacia, NS, 7, 1963.
- H. von Petrikovits, Fortifications in the North-western Roman Empire from the Third to the Fifth Centuries A.D., JRS, 61, 1971.
- A. Piganiol, La notion de Limes, in Quintus, 1963.
- D. M. Pippidi, Contribuții la istoria veche a României, 2, Buc., 1967.
- D. M. Pippidi, Scythia Minora, Buc., 1975.
- Gh. Poenaru-Bordea, Quelques monnaies trouvées à Adamclisi et la fin de Civitas Tropaeusium, Dacia, NS, 12, 1968.
- Gh. Poenaru-Bordea, Numismatica și distrugerea Histriei în sec. al III-lea e.n., SCN, 5, 1971.
- Gh. Poenaru-Bordea, Monede recent descoperite la Histria și unele probleme de circulație monetară în Dobrogea antică, Pontica, 4, 1971.

- Gh. Poenaru-Bordea, Monede byzantine de bronz din sec. V-VII în Dobrogea, BMI, 3, 1971.
- Gh. Poenaru-Bordea, V. H. Baumann, Monede romane și bizantine provenite din nordul Dobrogei, Peuce, 4, 1975.
- Al. Popeea, Monede bizantine din nordul Dobrogei, Peuce, 4, 1975.
- C. Preda, G. Simion, Tezaurul de monede romane imperiale descoperit la Isaccea și atacul gotic din vremea lui Gallienus, în Peuce, 2, 1971.
- Excavation Reports, in Dacia, Materiale, SCIV, Pontica.
- G. Remondon, La crise de l'Empire romain, Paris, 19.
- W. Seston, Dioclétien et la tétrarchie, Paris, 1946.
- Al. Suceveanu, Observations sur la stratigraphie des cités de la Dobrogea aux II^e-IV^e siècles à la lumière des fouilles d'Histria, Dacia, NS, 13, 1969.
- Al. Suceveanu, C. Scorpan, Stratigrafia Histriei romane tîrzii în lumina săpăturilor din 1969 și 1970 în sectorul central, Pontica, 4, 1971.
- Al. Suceveanu, In Legătură cu data de anexare a Dobrogei de către romani, Pontica, 4, 1971.
- Al. Suceveanu, La défense du litoral de la Dobroudja à l'époque romaine, RRH, 2, 13, 1974.
- Al. Suceveanu, Viata economică în Dobrogea romană, sec. I-III e.n., Buc., 1977.
- Stare culture u Derdapu, Beograd, 1969.
- E. Stein, Histoire du Bas-Empire, Desclée de Brouwer, Paris-Bruxelles, 1949-1959.
- Al. S. Stefan, Apeductele cetății Tropaeum Traiani, BMI, 3, 1972.
- H. Schönberger, The Roman Frontier in Germany: an Archaeological Survey, JRS, 59, 1969, and in Studien zu den Militärgrenzen Roms, Vorträge des 6. Internationalen Limeskongresses in Süd Deutschland, Köln-Graz, 1967.
- Al. S. Stefan, Troesmis, considerații topografice, BMI, 4, 1971, p. 43.

CHAPTER I

INTRODUCTION

THE HISTORY OF ARCHAEOLOGICAL RESEARCH. GENERAL SURVEY OF THE DEFENSIVE SYSTEM ON THE LOWER DANUBE.

The limes poses some of the most complex and important problems in the Roman Empire's history in the Lower Danube region. Its study and the resulting knowledge are important for the understanding of the entire political, administrative, social and economic development of the province of Scythia Minor.

If, in the history of Dobrujan archaeology, topographical studies have been carried out for many years, providing data of permanent value for research into fortifications, stratigraphy was less well studied until the Second World War, which is explained by the evolution and progressive development of methods of archaeological research.

The first archaeological excavations in Dobruja, directed exclusively towards the discovery of inscriptions and without any concern for stratigraphy or chronology, but leading fortuitously to the acquisition of some topographic data, were those at Troesmis, carried out in the second half of the nineteenth century.¹ The method of excavation employed, that of a rapid uncovering of walls, led to irrecoverable losses for science.²

After the return of Dobruja to Romania in 1877, beginning with an examination of the monument at Adamclisi (Tropaeum Traiani), Gr. Tocilescu undertook some excavations in the fort of Tropaeum, their purpose being to discover inscriptions, an aim which was crowned with great success. After 1895 the excavations in the fort were intensified, but were left in the charge of architects who were not trained in archaeology.³ The excavations have revealed the late Roman precincts, the main street and the basilica. Despite the lack of records of the stratigraphical and topographical results, V. Pârvan has succeeded carrying out a retrospective historical re-evaluation of these excavations, explaining in a remarkable way the topographic data and even some of the stratigraphic observations.⁴

Gr. Tocilescu and his assistants also excavated at Axiopolis, Tomis, Callatis and Troesmis.

Only the excavations of V. Pârvan at Ulmetum, and those carried out at Histria and Tomis (modern Constanta) were truly scientific, being milestones in archaeological researches in Dobruja.⁵

V. Pârvan succeeded in correlating the stratigraphic and the topographic data, epigraphic and numismatic evidence producing the first truly

historical explanations. He also emphasised in 1906⁶ the importance of the Dobrujan limes as a principal object for future research, but excavations on the limes started later. Between the two World Wars there have been the excavations at Capidava (started in 1923), with more or less attention to stratigraphy,⁷ and Dinogetia (1939).⁸ For the rest of the Lower Danube limes there have been the excavations at Sucidava (Celei), started in 1936.⁹

In fact, thanks to the old excavations we have the plans of some forts, many of them still useful today. More difficult and sometimes impossible, due to the lack of stratigraphy, is the chronological and historical interpretation of these defences and monuments, and of their stages of development and evolution.

* * * * *

Today we must accept the leading role of stratigraphy in almost any archaeological research; the modern, scientific outlook means a unitary complex of component parts. Topography and even architectural elements can sometimes offer general indications of chronology, but only stratigraphy has accuracy and precision.

The main purpose of this work is to establish a stratigraphically based chronology, starting from the evidence of the excavations carried out at Sacidava (Musait) and from the interpretation of the data from the old and new investigations carried out in the forts of the lower Danube limes.

We will use for comparative purposes the stratigraphy of the cities of the western shores of the Black Sea, but the basis of our argument lies in our own excavations and original results from work carried out at Sacidava, Tropaeum Traiani, Histria, Tomis and Callatis.

Except for Sacidava, the forts along the Lower Danube limes have been partly studied,¹⁰ though the work done in the forts of the Scythian limes is rather limited. Among the 18 fortifications and fortified settlements known from ancient sources and identified on the ground, and of the 30 fortified sites discovered on the ground, only 11 have been excavated at all, and of these only a few have received closer attention (Sacidava, Dinogetia, Capidava, Tropaeum).

* * * * *

The Latin word limes has been discussed by scholars, who are in relatively unanimous agreement. It does not have an exact modern equivalent.¹¹ Generally speaking, and particularly in the case of the lower Danube, the characteristic feature of the limes is its two-dimensional nature, implying a definite width, as well as its longitudinal development. For efficient supervision and defence it was necessary to have an organisation in depth, based on a network system directly connected with the limes.

We must draw special attention to a very important and characteristic aspect of the Scythian defensive system: it has two principal lines of fortification. The first lies along the Danube, with regularly spaced fortifications; the second one is in depth, but near the Danube,¹² and lies along a road which runs from south to north parallel to the Danube, through Tropaeum, Ulmetum and Irida. It also includes some fortifications on the crossroads in the interior.

such as Questris, Palmatis, the site at Plopeni, or Horia. During the tetrarchy, an additional fortified line was created in the north-west corner of Scythia: Traian, Cerna, Nifon, Niculițel. The towns along the coastline were also strongly refortified at the same period.

Simultaneously with the organisation of such a strong limes along the line of the Lower Danube, it was also necessary to build some bridge-heads on the left bank of the river. Such bridge-heads on the Scythian limes were at Aliobrix, Barboși, and perhaps at the Ialomița mouth of the river, but we do not have any evidence of the restoration or even existence of these fortresses in the fourth to sixth centuries.¹³

Although we have a fair understanding of the organization and operation of the Roman defensive system on the Lower Danube for the fourth century from the literary sources, the data is inadequate for the two succeeding centuries.

In the fifth and sixth centuries A.D. the soldiers of the frontier units continued to live and fight, tied to their lands, losing the original names of their units, the garrisons of limitanei surviving in the place-names and the names of the forts. Repeated reforms led to the appearance and development of an institution of the limitanei on the Lower Danube, immobilising and tying the soldiers down to the land. The original names of the units disappeared along the limes, and there appeared instead the frontier soldier, whose position was inherited by his descendants, together with his post in the fortress, his rank, and all his military rights and obligations towards the Empire.

We believe that these profound changes explain why Procopius speaks only of the fortifications, without mentioning the names of the military units stationed in them, because in naming the fortress he also named the garrison of limitanei living under its name and flag. We consider that Procopius does not omit or fail to pay attention to the matter of units, but that in his time the name of a fortification was the same as the name of the garrison.

* * * * *

The organization of the Scythian limes in the fourth to the sixth centuries reveals a grand strategic concept, shown by: a) the two parallel main lines, that along the right bank of the Danube and that running north-south along the imperial road; b) the extraordinary fortification of the north-western triangle Troesmis-Dinogetia-Noviodunum, with intermediate citadels (Arrubium, Luncavita, Rachel) and a supplementary fortified limes (Traian, Cerna, Nifon, Niculițel) and in addition, behind this, the largest of the late Roman fortifications, Irida (Libida); c) the fortification of the more important interior localities at crossroads (Plopeni, Cetatea, Horia) and also of the Black Sea coastal towns; d) we may also add the defensive system, widespread and with roots in Scythia Minor (modern Dobruja), encountered only in Dacia and Roman Britain, consisting of some strong earthwork fortifications (ditches and banks) protecting extensive extra muros urban areas (see the chapters on Noviodunum, Troesmis and Sacidava).

We can recognise not only the straightforward fortification of large towns in the interior, but also a carefully planned deployment in depth of all

the defensive works. Thus, beginning in the fourth century A.D., the province of Scythia was transformed into a strong fortress, repaired and rebuilt by a succession of emperors for the protection of the eastern part of the Balkan Peninsula and of the new capital of the Empire, Constantinople.

* * * * *

The work of identification and location on the ground of the fortifications of the Lower Danube limes started a long time ago and is still far from complete.¹⁴ It has as its basis the interpretation and comparison of the literary sources with the archaeological and epigraphic evidence.

Researches start from Ptolemy's Geographia (written in the 2nd century A.D.);¹⁵ the Scutum Durae Europi repertum (dated to 230-250 A.D.);¹⁶ the Antonine Itinerary (first written ca. 212-218 A.D., but modified in the time of Diocletian);¹⁷ the Tabula Peutingeriana (the first manuscript dating from the 3rd century but revised in the 4th century);¹⁸ the Notitia Dignitatum (a version dating from the time of Constantius II, with later addenda from the beginning of the 5th century but reflecting mainly the times of Diocletian and Constantine and therefore valid for the 4th century¹⁹; Hierocles (527-528 A.D.);²⁰ Procopius of Caesarea (from the time of Justinian;²¹ the Anonymous Geographer of Ravenna (7th century);²² and the Notitia Episcopatum (edited in the 8th century).²³

From these sources we use mainly the Antonine Itinerary, the Tabula Peutingeriana, the Notitia Dignitatum and Procopius.

The Antonine Itinerary²⁴ depicts the following situation in Dobruja: Dorostoro, leg. XI Cl. m.p. XII; Sucidava, m.p. XVIII; Axiupoli, m.p. XII; Capidava, m.p. XVII; Corso, m.p. XVIII; Cio, m.p. X; Bire, m.p. XIII; Troesmis, leg. I Iovia, m.p. XVIII; Scythica; Arrubio m.p. VIII; Diniguttia, m.p. VIII; Novioduno, leg. II Herculia m.p. XX; Aegiso, m.p. XXIII; Salsovia, m.p. XVII; Salmorude, m.p. VIII (probably the latin transcription of Halmyris).

The Notitia Dignitatum²⁵ enumerates the following fortifications: Durostorum, Cimbriana, Sucidava, Altinum, Sacidava, Flaviana, Axiopolis, Capidava, Carsium, Cius, Beroe, Troesmis, Arrubium, Dinogetia, Noviodunum, Aegyssus, Talamonium, Salsovia, Gratiana, Platypegiae.

The de Aedificiis of Procopius of Caesarea is of great importance for the 6th century and is much referred to by historians and archaeologists. The fortresses mentioned by Procopius²⁶ in the area in which we are interested are: In Moesia Secunda, after Transmarisca, the forts of Altina and Candidiana "destroyed long ago by the enemy", Saltupyrgos, Dorostolos and Sucidava, the destroyed parts of each of these forts being restored. A little further from the Danube bank there are noted Quesstris, Palmatis and Adina, then Tilicion, and "a fortress to the left".

In Scythia "firstly the fort named Sanctus Cyrilus", than Umetum, Bida, Aegyssus, Halmyris. Along the Istru river: Nicopolis, Zicideva, Spibyros, the town Castellon, Cistidizus, Basternas, Metallos, Veripara, Spathizos, Marcerota, Bedag, Zisnudeva, Turules, Iustianianopolis, Therma, Gemellomantes, Asilava, Cuscauri, Cusculi, Fossatum, Bladina, Marciano-polis, Scythias, Grapeo, Nono, Trosmis, Nealodun, Residina, Constantiana,

Callatis, Bassidina, Beledina, Abrittos, Rubusta, Diniscarta, Monteregeine, Becis, Altina, Mauroballe, Tigra, Scedeba, Novas. In the interior of the country: Axiopa, Carso, Gratiana.

The number of fortifications in Dobruja is 40, many of which cannot be identified. Those located are underlined below. It is difficult to determine which really existed and which did not among those listed by Procopius, but certainly too many fortifications are assigned to the time of Justinian.²⁷

At the beginning of Justinian's reign, Hierocles lists the following forts along the Scythian limes: Axiopolis, Capidava, Carsos, Trosmis, Novioduno, Aegissos and Halmiris.²⁸

A few names of forts can also be found in the Cosmographia of the so-called "Anonymous Geographer of Ravenna".²⁹ Stoma Peuci, Salsovia, Egypsum, Novioduno, Dinogessia, Arubion, Roranus, Birafon, Carsion, Capidava. In the other place we meet: Bireon, Carsion, Capidava, Sancidapa and Dorostolon.

If we list the forts mentioned in the various sources, we obtain for the 4th century a total of 26, and for the 6th century a total of 40 names, of which approximately 25 are not located or are approximately fixed). We have only 18 ancient fortified settlements which are located with certainty. But archaeological research has revealed 30 fortifications, the ancient names of which we do not know.

* * * * *

We will now consider the archaeological features which are revealed by surveying the ground along the Danube, from south to north, that is to say the first defensive line (see map, Pl. I).

Bugeac. Apparently a late Roman fort.³⁰ No excavations carried out.

Dervent. A probable late Roman fortification, with a defensive ditch.³¹ No excavations carried out.

Canlia. A Roman fort (according to Tocilescu, Polonic and TIR) measuring 154 x 140 m.³² No excavations carried out.

One of these three sites, most probably Canlia, may be identified as Cimbriana.

Izvoarele. A large fortification with 2 metre thick walls surrounded by a ditch.³³ No excavations carried out. Probably Sucidava.

Satu Nou. The old publications refer to it as a Roman fort, but the more recent ones consider it to be a settlement.³⁴ No excavations carried out.

Oltina. Fortifications covering 4 ha., surrounded by ditches and earth ramparts.³⁵ No excavations carried out. Probably Altinum.

Dunăreni. The older sources refer to a Roman fort with a later one on top of it, to the west of the village, but our ground survey refutes this.

Musait. A Roman fortification is situated on the hill of the same name, on the bank of the Danube, between Dunăreni and Rasova. It is currently the

site of archaeological excavations. It is identified with certainty as Sacidava. Earlier claims are refuted.³⁷

Rasova. On "Pescărie" hill, a late Roman fort.³⁸ Probably Flaviana.

Cochirleni. A probable fort.³⁹

Cernavoda-Hinog. On a terrace facing Hinog island, two Roman fortifications with walls, basilica, inscriptions, etc. have been recorded.⁴⁰ This was the site of Axiopolis. Verified by ground survey and old excavations.

Seimeni. Between Seimeni village and lake Domneasca there is a Roman settlement with a ditch and banks.⁴¹ Near Seimenii Mari a defensive tower (20 x 20 m)⁴² has been pointed out.

Capidava. An identified fortress, examined in excavations.⁴³

Topalu. A fort with stones walls, ditch and bank has been recorded. Now destroyed by a quarry.⁴⁴ Verified.

Ghindarești. P. Polonic noted a fort with wall, ditch and bank.⁴⁵ Not verified.

Hirsova. Certain location of Carsium, built by Trajan in A.D. 103. Some excavations have been carried out.⁴⁶

Girliciu. Probably Cius. Old reports refer to two concentric precincts (120 x 120 m and 85 x 60 m) surrounded by 7 ditches and ramparts.⁴⁷ No excavations have been carried out.

Piatra Frecatei. Identified as Beroe. Excavations have been carried out in the necropolis and settlement.⁴⁸

Peceneaga. Traces of fortifications.⁴⁹ Unverified.

Iglița. Identified as Troesmis. Old excavations (see above).

Carcaliu. Probably a fort built under Constantius II. The only evidence comes from an inscription discovered there. Not verified on the ground.

Macin. Identified with certainty as Arrubium. No excavations have been carried out.⁵⁰

Jijila (Gherma). Old reports refer to two forts. Not verified by excavations.⁵¹

Garvăn (Bisericuța). Identified with certainty as Dinogetia; systematically excavated.

Luncavita. Old reports, unverified, refer to a fort measuring 225 x 75 m.⁵²

Rachelu. Old reports refer to a fort. Unverified.⁵³

Isaccea. Identified as Noviodunum. Excavations have been carried out.

Somova. Probably a settlement fortified with walls.⁵⁴ Unverified.

Tulcea. Identified as Aegyssus.⁵⁵

Nufărul. Old reports of a Romano-Byzantine fort. Identified as

Talamonium, but not verified by excavations.⁵⁶ An inscription gives the name of the fort as Salsovia.

Murighiol. Old reports of a fort and some new excavations.⁵⁸ May be Gratiana.

Dunavățul de Sus. Probably a fort but not verified. May be Ad Stoma (?).⁵⁹

Dunavățul de Jos. Fort measuring 45 x 66 m with stone walls and round towers.⁶⁰ Today this is called "Cetatea Zaporojenilor" and is identified probably with Halmiris.

The second line of fortifications representing the fortification in depth, are difficult to locate. Questris, Palmatis, Adina, Tilicion might be identified with the remains at Cetatea.

Adamclisi, Tropaeum Traiani (in the 6th century, Sanctus Cyrillus). Excavations have been carried out.

Mircea Voda. Old reports refer to an early fort (50 x 20 m) at "La Talieni". There is another late Roman fortress near the railway station.⁶¹

Pantelimon de Sus. Certainly Ulmetum. Excavations have been carried out by V. Pârvan.⁶²

Slava Rusa. Large fort covering 24 ha. Very probably Ibida (or Libida). Old and uncertain reports, but an outline plan based on aerial photography is available.⁶³

Some data seems to indicate an additional fortified line in the north-west corner of Dobrudja. Fortifications have been recorded in ground surveys at Traian (60 x 60 m) with semicircular walls and towers,⁶⁴ at Cerna (precincts and ramparts),⁶⁵ Nifon (fortress with walls and towers),⁶⁶ Niculitel (225 x 70 m),⁶⁷ all of which lie on a straight line. Horia is deeper in the interior. Unfortunately the old reports have not been verified by archaeological investigations. Only at Traian has aerial photography confirmed a square fort (quadriburgium) with 45 m sides.⁶⁸

* * * * *

The evidence for the identification and location of the forts will be presented for each one in turn.

For the time being we will only state that, using all the available literary and epigraphic information, combined with archaeological discoveries, we can locate on the Scythian limes, following the flow of the Danube down to the sea and starting from Durostorum (Silistra): Cimbriana (Bugeac, Dervent or Canlia), Sacidava (Izvoarele ?), Altinum (Oltina), Sacidava (Musait-Dunareni), Flaviana (Rasova), Axiopolis (Cernavoda), Capidava (Capidava), Carsium (Hirsova), Cius (Girliciu), Beroe (Piatra Frecatei), Troesmis (Igilita), Arrubium (Macin), Dinogetia (Bisericuța-Garvan), Noviodunum (Isaccea), Aegyssus (Tulcea), Talamonium (probable Nufărul), Salsovia (probably Mahmudia), Halmiris (Zaporojeni ?). Very difficult on Gratiana, Vallis Domitiana and Ad Salices.

* * * * *

Aegyssus. We emphasise the importance of a grave stela discovered at Tulcea,⁶⁹ which formed the first epigraphic evidence for the name of Aegyssus fortress, confirming the older identification.

Salsovia can be located at Mahmudia thanks to a Latin inscription discovered there, dating from the reign of Licinius (A.D. 322), containing the ancient name of this citadel: cast(ris) Salsoviensib(us).⁷⁰

Dinogetia. The earliest reference to Dinogetia is to be found in Ptolemy.⁷¹ Thanks to the rather confused data of the ancient geographer, opinions differ, some scholars locating Dinogetia on the left bank of the Danube at Gherghina-Barboși,⁷² while others place it on the right bank at Bisericuța-Garvăn.⁷³

Precise descriptions in the fourth century sources locate Dinogetia on the Scythian limes, on the right bank of the river, between Arrubium and Noviodunum at distances that could be verified. Thus, the Antonine Itinerary places Diniguttia between the two fortresses, 9000 paces (13.5 km) from Arrubium and 20,000 paces (30 km) from Noviodunum. The same information is given in the Notitia Dignitatum (where Dirigothia is placed between Troesmis and Noviodunum) or in the Anonymous Geographer of Ravenna (Dinogessia). Gh. Ștefan tried to resolve this contradiction by proposing that in the second and third centuries Dinogetia was the name of the Roman camp at Barbosi on the left bank of the Danube and that, after the abandonment of this site in the beginning of the fourth century, a new fortress was built on the headland of Bisericuța-Garvăn,⁷⁴ which would also explain why it is missing from the Tabula Peutingeriana. This view is based on the analysis of the archaeological data obtained in the course of the excavations carried out in the past year, which have proved that the fortifications were constructed at the beginning of the fourth century.

At Troesmis, besides the old evidence,⁷⁵ two more inscriptions discovered at Iglîța (Turcoia) are informative. The first one refers to Q. Caecilius Redditus, legatus legionis V Macedonicae and to T. Flavius Alexander, veteranus of the Vth legion Macedonica. The second inscription mentions L. Licinius Clemens, veteran of the Vth legion Macedonica, quinquennalis canabensium and decurio Troesmensium.⁷⁶ We think it is enough to emphasise the connection between the Vth legion Macedonica and Troemis. Also important is the inscription discovered at Iglîța which refers to Valerius Thumpus, prefect of the second legion Herculia, having their headquarters at Troesmis (Notitia Dignitatum).

From the time of Constantius II, we have an inscription discovered at Caracaliu, in the territory of Troesmis, showing that, under the authority of Sappo, vir perfectissimus dux limitis Scythiae, the construction of a fortification has been carried out there (erecta istius fabri(c)ae munitione clausurunt).⁷⁷ This document shows that the care taken to keep the limes in repair was not directed only to the big forts and well-known camps, but also extended to the erection of small fortifications at vulnerable points. However, it is hard enough to locate these last structures.

Themistios informs us⁷⁸ that on the occasion of the Emperor Valens' expedition in 369 against the Goths, when the Roman army passed the Danube at Noviodunum, several forts were restored, and others were newly built,

and aqueducts and harbours were repaired. Themistios himself was present at the building of a fort on the banks of the Danube, on a promontory, a fort the construction of which had been commenced earlier, but which had been left unfinished. Unfortunately the Greek rhetor, who escorted Valens in his actions, does not tell us where this fort was situated. An inscription from the time (A.D. 369), discovered at Gîrlăciu, says that after the defeat of the Goths a burgus was erected by the soldiers, probably from the legion Prima Flavia Gemina.⁷⁹ The fortress of Cius has been located at Gîrlăciu.

The location of Capidava is also now securely based firstly on an inscription mentioning a vexillatio Capidabesium,⁸⁰ and on the measurements made on the ground, following the distances indicated in the Tabula Peutingeriana, which gives 18,000 paces (27 km) between Capidava and Carsium (Hirsova), and 18,000 paces between Capidava and Axiopolis (Cernavoda), which correspond to the real distances. The accuracy of the data from the Tabula has also been verified by the discovery at Seimenii Mici of a milestone indicating 6000 paces from Axiopolis,⁸¹ which corresponds to the actual distance (9 km); and from Seimeni to Capidava is a further 18 km (12,000 paces), 18,000 paces in all from Axiopolis to Capidava.

Except for the milestone from Seimenii Mici, we do not have any other archaeological evidence to confirm directly the identification of the fort of Axiopolis at Cernavoda, facing Hinog. The name Axiopolis is encountered only once on a tombstone discovered at Tropaeum Traiani.⁸² An indirect testimony is the inscription discovered in the debris of a basilica of the fortress, that mentions the name of the Christian martyrs Cyrillus, Kyndeas and Tasios, who we know were killed at Axiopolis.⁸³ In any case, the distances given in the sources (the Tabula and the Itinerary), agree with the other evidence and confirm the identification with the ruins that can be seen at Hinog. It is also true that the fort of Axiopolis appears in this place on some maps dating from the 17-18th centuries.⁸⁴

The discovery of an inscription at Hîrșova proves the construction of a camp (Carsium) in 103 by the Roman troops.⁸⁵

Among the most important pieces of evidence for the identification of some of the forts in the south-west of Dobruja, there is a milestone discovered south-west of Rasova.⁸⁶ It dates from the reign of the Emperor Decius (249-251). The importance of the discovery consists first of all in the possibility it offers of an identification of the site of the fort of Sacidava. Following the distance of 7 km upstream we arrive at the ruins of a Roman fortress on the hill of Musait between Rasova and Dunăreni.

The proposed identification with Musait is perhaps supported by funerary inscriptions discovered here, if we suppose that the numerus equitum referred to in that inscription could be considered to be the Cuneus Equitum Scutariorum of the Notitia Dignitatum from Sacidava.⁸⁷ We incline towards the following completion: ...qui milit(uit) Sac(idaue),⁸⁸ instead of ...qui milit(auit) (inter) Sag(ittarios). The identification of Sacidava at Musait is important for the clarification of the situation along the Scythian Limes, bearing in mind the old interpretation of Gr. Florescu who placed Sacidava somewhere near Capidava, perhaps at Topalu,⁸⁹ despite the fact that this contradicts the Notitia Dignitatum.

Only in the Notitia is the name of Sacidava correctly transcribed with the very important indication that in this fort was the headquarters of the Cuneus Equitum Scutariorum, the southernmost cavalry unit in the province of Scythia, situated between the Cuneus Equitum Solensium at Capidava (north) and the Cuneus Equitum Stablesianorum at Sucidava (south), the latter unit being the last one at the northern end of the Limes of Moesia Secunda. The exact information given by the Notitia Dignitatum become more conclusive for the identification of Sacidava at Musait, especially after the discovery of the miliarium mentioned above.

Ptolemy mentions two places between Durostorum and Axiopolis, Transmarisca and Sucidava. The Tabula Peutingeriana mentions Sagadava, but between Durostorum and Sucidava, the order being inverted probably because of the resemblance of the names, which may be the reason for its omission from the Antonine Itinerary. Skedeba appears in the list of forts given by Procopius, but not among those erected or rebuilt by Justinian. The Ravenna Geographer marks only one place between Dorostolan and Capidava: Sancidapa.

The identification of the site of Sacidava is also important for the identification of other ancient sites situated between Durostorum and Axiopolis. Both early and more recent ground surveys⁹⁰ have discovered, upstream along the river, Romano-Byzantine fortified settlements at Bugeac, Servent, Canlia, Izvoarele, Satu Nou, Oltina, Viile, Dunareni, Musait, Rasova and Cochirleni. Starting from the identification of Sacidava, attempts to correlate the itineraries with the archaeological data became easier, the fort at Musait forming the point of reference. Therefore a case can also be argued for the identification of Sucidava with the ruins at Izvoarele.

For Cimbriana (in Moesia Secunda, where the Milites Cimbriani was stationed), we may postulate Bugeac, Dervent or Canlia. Further to the north, the next locality Altinum was the base of the last auxiliary unit in Moesia (milites naucloarii Altinensis, that cannot be placed anywhere but at Oltina (Flaviana), and may now be identified with the settlement at Pescarie, to the south-west of Rasova.

A recent attempt to locate Sanctus Cyrillus, Questris and Tilicion, may have some chance of success.⁹¹ Tilicion may be at Cetatea? Sanctus Cyrillus has been more probably located at Rasova or Axiopolis,⁹² but it cannot only be sought along the Danube. On another hypothesis, this was the name of the settlement in the time of Justinian, while in the other sources it is called by the name of Tropaeum Traiani. In this way we can also explain the absence from the list of Procopius of such an important place as Tropaeum: the road from Sacidava deviated from the river passing through Questris, Palmatae, Adina and arriving at Tropaeum Traiani (called Sanctus Cyrillus in the time of Justinian) rather than the route through Ulmetum and Ibida (Libida).

However, pending the discovery of some conclusive evidence, we remain in the field of hypothesis, and we cannot overlook the alternative view, based on the inscription with the names of the martyrs Cyrillus, Kyndreas and Tasios discovered at Axiopolis, after which Axiopolis may have received (in the time of Justinian) the name of the martyr Sanctus Cyrillus, common procedure at that time.⁹³

In the north-east of Dobruja, the differences between the two itineraries are more serious. Starting from the hypothesis that the differences are due to the fact that every itinerary followed a different route, the Tabula following a water route, and the Antonine Itinerary a land route, we arrive at the following hypothetical localizations: Ad Stoma at Caraorman (the point where the Peuce branch debouches into the sea), Halmyris at the fortress of Zaporojeni (Dunavatul de Jos), Vallis Domitiana at Agighiol and Ad Salices at Caramanchioi. In fact, on the northern branch of the river, only two forts are precisely identified: Aegyssus and Salsovia (see above).

We think that the arguments for the localization of the forts Tropaeum Traiani, Ulmetum and Ibida (Libida) at Adamclisi, Pantelimonul de Sus and Slava Rusa respectively, are so well known that it is not necessary to study them thoroughly. The view that Tropaeum Traiani, situated as it is on the imperial via Marcianopolis-Noviodunum and therefore on the second route, was part of the defensive system on the Scythian Limes, is confirmed by the commemorative inscription discovered at the eastern gate of the fort and dated to 316.⁹⁴ It shows that after the barbarians had been defeated everywhere, the fort of Tropaeum was rebuilt from the foundations, in order to strengthen the limes ("ad confirmandam limitis"). As for Ulmetum, the proof is due to V. Parvan. An inscription of 140 was erected in honour of the Antoninus Pius by Consistentes vico Ulmetum.⁹⁵ The big fortified settlement at Slava Rusa was identified with Ibida (Libida) for the first time by V. Parvan.⁹⁶ His hypothesis was based on the fact that Slava Rusa was the biggest Late Roman fortification in Scythia and so could not be ignored; also it was situated between Ulmetum and Aegyssus, as Procopius tells us, and justified by its size (24 ha) the name of "polis" given to it by the same author. Recently, starting from an inscription of the 2nd-3rd century discovered at Slava Rusa and from the correlation of Procopius' data with those of Theophylactus Simocatta who calls it Libidon polis, there has been a further attempt to identify it with Libida.⁹⁷

NOTES TO CHAPTER I

1. Excavations in 1864, cf. L. Renier, Revue Archéologique et épigraphique en Moldavie et en Valachie, Archives des Missions Scientifiques et Littéraires. Choix de rapports et instructions, II^e séries, tom. IV, 1867. E. Desjardins, Voyage archéologique et géographique dans la région du Bas Danube, Revue archéologique, 17, 1868; V. Duruy, Histoire des Roumains, Paris, 1883, p. 26.
2. J. Weiss, Die Dobrudscha im Altertum, Sarajewo, 1911, p. 49; note 1. R. Netzhammer, Die christliche Altertümer der Dobrudscha, Bucharest, 1918, p. 133. A Betz, RE, XIII, 1939, col. 952ff.
3. R. Vulpe, Dobrogea: Cincizeci de ani de viata romaneasca, Bucharest 1928, pp. 120-127. Idem, HAD, 36-37, idem, Revista de istorie 28, 10, 1975, p. 1553.
4. V. Parvan, Cetatea Tropaeum, BCMI, 4, 1911, I, p. 1, II p. 163.
5. V. Parvan, Cetatea Ulmetum, I-III, Bucharest, 1912-1915. (ARMSI, série II, tom. 34, 36, 37); Histria, IV (ARMSI, II, 38, 1916); idem Histria, VII (ARMSI, III, 2, 1923); idem, Zidul cetatii Tomi (ARMSI, II, 37, 1915).
6. V. Parvan, Salsovia, Bucharest, 1906.
7. Gr. Florescu, Dacia, 3-4, 1927-1932, p. 483.
8. Ch. Stefan, Dacia, 7-8, 1937-1940, p. 401.
9. D. Tudor, Dacia, 5-6, 1935-36, p. 391-396 and idem, Sucidava, Craiova, 1974, p. 14-17.
10. Cf. and I. Barnea, Actes, p. 17. See also the bibliography to each chapter in this work. Even in the recent book Tropaeum Traiani I, Bucharest, 1979, stratigraphy occupies only four pages of the text, and with a lot of contradictory data.
11. Em. Condurachi, Les conditions politiques des Bas-Danube et l'organisation des Limes roumain, in Roman Frontier Studies, Tel-Aviv, p. 156-165; D. Tudor, SCIV, 9, 2, 1960, p. 337; idem, Sucidava, Latomus, Bruxelles, 80, 1965; R. Vettters, Dacia Ripensis, Wien, 1950 S.6-7 (Schriften der Balkankommission, Antiq. Abt. XI/11); J. B. Ward-Perkins, The Limes Tripolitanus in the Light of recent Discoveries, JRS, London, 29, 1949, p. 83; H. Schönberger, The Roman Frontier in Germany, JRS, 59, 1969, p. 144; H. von Petrikovits, Fortifications in the North-Western Roman Empire from the Third to the Fifth Centuries A.D., JRS, 61, 1971, p. 178.
12. Compare the great distance from the Danube of the east-west roads in Dacia Ripensis and Moesia Secunda.
13. I. Barnea, Actes, p. 21, 23.
14. We emphasise that we have used only certain and scientific data in this chapter. Some topographic data is given in P. Polonic, Cetatile

antice de pe malul drept al Dunarii (Dobrogea) pina la gurile ei, 24.7. 1935, p. 19; J. Weiss, Die Dobrudscha im Altertum: historische Landschaftskunde, Sarajevo, 1911; R. Netzhammer, Die christlichen Altertümer der Dobrudscha, Bucharest, 1918; idem, Aus Rumänien, I, II, Einsiedeln.

Unfortunately all these statements cannot be checked on the ground, and are doubtful.

15. Cl. Ptolemaeus, Geographia, Leipzig (Tauchnitz); 1843. See also Fontes, 1, p. 545.
16. I. Mititelu, BSNR, 37.1943, p. 78-91. Fontes, 1, p. 725.
17. Fontes, 1, p. 746.
18. Fontes, 1, p. 736.
19. Fontes, 2, p. 206.
20. Synecdemus, Fontes, 2, p. 350.
21. Fontes, 2, p. 458.
22. Fontes, 2, p. 579.
23. Carl de Boor, Zeitschrift für Kirchengeschichte, 12, 1891, 3-4, pp. 131-132.
24. Fontes, 1, p. 747.
25. Fontes, 2, pp. 209-210.
26. De aedificiis, IV, 7, 11.
27. His work De aedificiis was an official and eulogistic book, a fact recognized by the existence of the Secret History, too.
28. Sinekdemos, 637, 1-15.
29. IV, 5-6.
30. P. Polonic, op. cit., p. 19; Rev. Muz., 5, 1968, p. 349; TIR, L 35, p. 29.
31. Rev. Muz. pp. 348-349.
32. P. Polonic, loc. cit.; D. Vilceanu, SCIV, 1, 1962, p. 141; Rev. Muz. cit.; TIR, L 35, p. 29.
33. P. Polonic, loc. cit.; Rev. Muz. cit.; J. Weiss, op. cit., 23; 44.
34. V. Parvan, Descoperiri noua, p. 315; Rev. Muz. cit.; TIR, L 25, p. 64.
35. J. Weiss, op. cit., p. 44; TIR, L 35, 22.
36. P. Polonic, op. cit., p. 19; J. Weiss, op. cit., p. 43; R. Vulpe, HAD, p. 165, 341; TIR, L 35, p. 40.
37. P. Polonic, loc. cit.; V. Parvan, Ulmetum, 1, p. 580; TIR, L 35, p. 60.
38. J. Weiss, loc. cit.; V. Parvan, Ulmetum, 1, p. 580; TIR, L 35, p. 60.

39. J. Weiss, loc. cit.; R. Vulpe, HAD, p. 360; TIR p. 34.
40. RE, II, 2628-2629; Weiss, loc. cit.; Parvan, Ulmetum, I.580; P. Polonic, op. cit., p. 20-21; I. Barnea, SCIV, I, 1960, p. 69.
41. Weiss, 46; P. Polonic, loc. cit.; TIR, 65.
42. Gr. Florescu, Capidava, I, 1958 (Bucharest).
43. Ibid., passim.
44. P. Polonic, loc. cit.; TIR, p.73.
45. Ibid.
46. RE, III, 1616; R. Vulpe, HAD, p. 140, 160, 217; SCIV, 4, 1954, p. 601; Em. Condurachi, Studien, p. 170; A. Aricescu, Pontica, 4, 1971, p. 351.
47. P. Polonic, loc. cit.; Weiss, loc. cit.; R. Vulpe, op. cit., p. 195, 311.
48. P. Polonic, loc. cit.; Weiss, loc. cit., TIR, 26. op. cit. passim; TIR, 49. P. Polonic, loc. cit.; TIR, 57.
49. P. Polonic, loc. cit.; TIR, 57.
50. RE, II, 1487; Weiss, loc. cit., R. Vulpe, op. cit. passim; TIR, 24.
51. Polonic, loc. cit.; TIR, 48.
52. Weiss, loc. cit.; TIR, 49.
53. Polonic, loc. cit.; TIR, 60.
54. Polonic, loc. cit.; TIR, 68.
55. RE, I, 477; Weiss, p. 34, 43, 54; SCIV, 9, 1958, 155; A. Opait, Pontica, X.
56. Polonic, loc. cit.; Weiss, loc. cit.; TIR, 54.
57. Weiss, loc. cit., V. Parvan, Salsovia, 1906; TIR, 63.
58. Polonic, loc. cit.; TIR, 52.
59. Polonic, loc. cit.; TIR, 39.
60. Weiss, loc. cit.; TIR, 39.
61. V. Parvan; Ulmetum, I, 5, 7, no. 60; TIR, 50.; Al.-S. Stefan, Actes, p. 108.
62. V. Parvan, op. cit.
63. R. Netzhhammer, Christl. Altert., 154-156; R. Vulpe, op. cit. 341; TIR, 65; Al.-S. Stefan, op. cit., 105.
64. Polonic, loc. cit.; TIR, 73; Al.-S. Stefan, op. cit.
65. TIR, 32; Al.-S. Stefan, loc. cit.
66. Weiss, loc. cit.; TIR, 53; Al.-S. Stefan, loc. cit.

67. Weiss, loc. cit.; TIR, 53; Al.-S. Stefan, loc. cit.
68. Al.-S. Stefan, loc. cit.
69. I. Barnea, SCIV, 2, 1950, p. 176-78.
70. V. Parvan, Salsovia, p. 27-28.
71. III, 8, 1; III, 10, 1; III., 10, 5.
72. Th. Mommsen, CIL, III, the map. C. Schuchardt, Wälle und Chausseen im südlichen und östlichen Dacien, AEM, IX, 226; Gr. Tocilescu, AEM, XIV, p. 16.
73. W. Tomascheck, Die alten Thraker, 2, p. 72. V. Parvan, Castrul de la Poiana si drumul roman prin Moldova de Jos, ARMSI, 1913, p. 24.
74. Gh. Stefan, Dinogetia- A problem of Ancient Topography, Dacia, NS, 2, 1958, p. 317.
75. The fortress of Iglita was identified with Troesmis, thanks to some inscriptions. It becomes a reference point for the identification of the other fortifications in the region, on the basis of calculations of the distances from ancient itineraries. Gr. Tocilescu, Monumente epigrafice si sculpturali, I. Bucharest, 1902, p. 68, note 11; CIL, III, 773-776, 6160-6217, 6235, 6239, c, 6240, 6242, 7497-7511, 7599.
76. R. Vulpe, Canabenses si Troesmensenses. Doua Inscriptii inedite din Traesmis, SCIV, 3-4, 1953, p. 557-582.
77. CIL, III, 12483; V. Parvan, Salsovia, p. 9; R. Vulpe, HAD, p. 307.
78. Themistios, Orationes. X; I. Barnea, Themistios despre Scythia Minor, SCIV, 4.1967, p. 563; DID.II. p. 395.
79. CIL, III, 6159; I. Barnea, op. cit.; p. 569. V. Velkov, op. cit. p. 257.
80. Gr. Florescu, Capidava, 1.1958, p. 120.
81. Gr. Florescu, BCMI, 17, 1924, fasc. 40, p. 88; idem, Capidava 1, 1958, p. 120.
82. CIL, III, 14214; I. Barnea, Date noi despre Axiopolis, SCIV, 11, 1, 1960, p. 70.
83. I. Barnea, Dacia, NS, 1. 1957, p. 280.
84. I. Barnea, Date noi despre Axiopolis, p. 71.
85. V. Parvan, Descoperiri, noua in Scythia Minor, Bucharest, 1913 (ARMSI, 2, 35), p. 485.
86. C. Scorpan, Sacidava, Pontica, 6, 1973, p. 268.
87. N. Gostar, loc. cit.
88. A. Aricescu, Dacia, NS, 14, 1970, p. 298.
89. Gr. Florescu, Capidava, 1, p. 121. Idem, in Dacia, NS, 1, 1957, p. 237.

90. TIR, p. 29, 38, 47, 64, 22, 40, 26, 34, 60.
91. A. Aricescu, op. cit., p. 301.
92. J. Weiss, op. cit., p. 44; R. Vulpe, HAD, p. 290; TIR, L 35, p. 63.
I. Barnea, DID, 2, p. 421; idem, Actes IX congrès, p. 18-19.
93. Ibid., p. 18.
94. CIL, III, 13734; I. Barnea, DID, 2, p. 384 and note 81; Em. Popescu, op. cit., p. 184.
95. CIL, III, 14314; V. Parvan, Ulmetum, I, p. 585.
96. V. Parvan, op. cit., p. 578. note 3; I. Barnea, Actes IX Congrès p. 24.
97. A. Aricescu, BMI, 3, 1971, p. 58.

CHAPTER II

TOPOGRAPHICAL AND STRATIGRAPHICAL RESEARCHES ON THE LIMES SCYTHIAE

A. NOVIODUNUM, DINOGETIA, TROESMIS, BEROE, CARSIUM, CAPIDAVA, AXIOPOLIS, IBIDA, ULMETUM, TROPAEUM TRAIANI. Pl. I.

We must start by stating that on the Limes Scythiae we do not have data on the early Roman forts, so that we cannot attempt any reconstruction of a fort plan. This is because the early structures are covered by Late Roman constructions, and also because of the lack of deep excavations.

Some traces of early fortifications with stone defensive walls have been found only at Sacidava, Capidava and Tropaeum. In contrast, the stratigraphical data and evidence for the second and third century occupation there are much more abundant.

We will discuss in the following pages the topography and stratigraphy of the forts along the Lower Danube, from north to south, leaving Sacidava to a special discussion at the end.

NOVIODUNUM

Now Isaccea, in Tulcea county. Pl. III and IV.

Noviodunum (together with Troesmis and (L)Ibida) were forts which were responsible for the most important part of the supervision and defence of the northern sector of the Scythian limes, which was perhaps the most threatened frontier throughout the Roman period.

Noviodunum was mentioned by Ptolemy (Geographia, III, 10, 2) as a polis. A great number of bricks and tiles bearing the stamp CFM and an inscription with the name of a praefectus classis show that Noviodunum was the headquarters of the Roman Navy on the Lower Danube. In the fourth century it was the residence of the commander of legio I Iovia.

In A.D. 369 a bridge of ships was built to enable the Roman army to pass over the Danube, and a treaty was concluded on a ship between the Emperor Valens and the Visigoth Athanaric (Ammianus Marcellinus, XXVIII, 5, 6; Themistios, Or., X).

Noviodunum was situated at one of the most heavily used crossings on the Danube, at the end of the central road that passed through Tropaeum, Ulmetum and (L)Ibida. The geographical position meant that the fortress of Noviodunum enjoyed an excellent defensive situation: it was situated on a height overlooking the lakes and marshy lands which surrounded it.

Noviodunum was identified with the fort at Isaccea, as far back as the 19th century,¹ after the inscriptions from Troesmis-Iglita were discovered, forming a reference point for the calculation of the distances given in the ancient itineraries. The identification of Noviodunum was unanimously accepted.

The archaeology of the vicinity of Noviodunum is less well known, although it is the most extensive in the province. The only topographic data is that of P. Polonic, and is rather brief, referring only to the fort.² Recent investigations have revealed and published only the plan of the area near the Danube bank.³ Investigation of the cemetery are in a more advanced state. Recently, aerial photography has enabled us to explain some of the basic elements of the fort topography and of that of the surrounding area.⁴

Archaeological excavations of an intermittent and rescue character have been carried out especially in the northern part of the fort and on the Danube bank, revealing the foundations and lower parts of the walls for a distance of about 250 m, running in an east-west direction, but with pronounced changes of direction to the west. The defences on the northern side, as far as they were investigated, were 3-4 m wide with 7 massive external towers of U form and an entrance protected by two rounded and one very big quadrilateral tower, at the western extremity. Traces of another tower were discovered on the eastern side too.⁵ To the south, 30 m inside the fortress, less precisely dated structures of different periods have been found, their dating being supported not by stratigraphy but by the superposition of structures or the composition of cement. In this way, the precincts were dated to the period between the 4th century (the Constantinian age) and the 6th century. The buttresses to the west, which are superposed by the precincts, were dated to the 3rd century A.D., perhaps later re-used in part in the next period, and an edifice with three naves and an apse to the north belongs to the 5th-6th centuries.⁶

Regarding the stages of development of the fortress as a whole, it is interesting to note the observations made in two perpendicular sections on the east side, which prove the existence of two precinct walls 12 m apart. Thus, the section on the east side revealed a precinct wall 3.5 m thick made of stone with mortar mixed with gravel, and 12 m inside it was another precinct wall 3 m wide, built of stone with horizontal courses of bricks, bound with mortar mixed with pounded bricks. The same situation was found on the south side.⁷

The authors of the excavation reports presumed (in 1965) that the external wall was older than the internal one, but without any stratigraphic or numismatic evidence to support this view. The internal 3 m-wide wall should date from the period of Diocletian - Constantine, considering the dimensions and the mode of construction involving brick courses. The 3.5 m-wide wall may be somewhat later, examples of precinct extensions being common and the thickness being the same as that of the north precinct wall, with U-form towers with rounded fronts, characteristic of the later period of the fortress' life (Theodosius II?).⁸

On the north side of the fortress, three periods have been demonstrated for the precinct walls situated on the bank of the Danube, and for some internal constructions close by the north precinct. Precise dating of these walls is very difficult owing to extensive disturbance and in some cases complete destruction by floods, which has destroyed the sequence of deposits, and in the absence of stratigraphic data the criteria of the relative superposition of the walls and the composition of the mortars used in their construction have been used.⁹

A large room (No. 1; 10 x 14 m) has thick walls (1-1.60 m) of which the east-west one was reinforced with a short (3.50 m) but thick (2.50 m) buttress. The north wall is semicircular (8 m long, 1 m thick) which makes us believe that it is a wall-tower. It is joined to the south-east by a wall 7.50 m long, to a large rectangular tower (16 x 13 m) with walls 3.5 m thick.

It should be noted that on the external side of the North precinct (ZI) there are four buttresses, one at the north-west corner of the tower and the other three at regular intervals of 6-7 m on the east side of the tower. Another large buttress is situated on the north-east corner of the large tower Z.I to the east of the large tower. This was strengthened by three big pillars which formed a single structure 9 m long and 2-3 m wide which included some of the buttresses mentioned above. Further on, the precinct wall (now called Z.II) suddenly turns to form an unusual construction, with the north and west sides at right angles and a single semi-circular wall facing the south-east. It was probably a tower, to judge from its location. From this tower starts a 3 m-thick masonry wall with internal buttresses. Additional consolidation took place in two later phases, as can also be seen in the precinct walls nearby. From this point, the north precinct walls of Noviodunum, after a marked curve, continues towards the east (Z.III) on the Danube bank. The precinct wall is very thick here (4 m), and is furnished at 16-17 m intervals with large U-shaped towers with rounded fronts. So far seven defensive towers have been found on the north wall of the fortress in its final phase, a length of wall about 170 m long. At tower no. 7 (10 m wide and 9.5 m deep) which is better preserved, the outer face was made of chalky stones and the emplecton of irregular stones. The mortar contains fine gravel which indicates, at least for the tower base, an earlier construction than the beginning of the 4th century A.D. which is also true of the precinct wall and towers 5 and 6.

The best preserved towers are nos. 5 and 4, situated only 8.50 m apart. Their dimensions are the same as those of tower 7. They were very carefully constructed from large stones, a style of construction that continues on the curtain-wall too. The emplecton is different as regards the type of mortar used (with gravel at tower 5 and pounded bricks at tower 4).

Two strong walls 2.50 m wide were of one build with the precincts, constructed perpendicularly (with buttresses) on the inside of the fortress, and are separated by the same distance (8.50 m) as are towers 4 and 5. This fact and also the proximity of these two towers, indicates a gateway in the late Roman fortress.

Tower no. 1 to the north-east is very massive (15 m wide) and appears to be the north-east corner of the fort.

Three major periods of construction can thus be distinguished:

- I. The period of the walls made with simple mortar;
- II. The stage when fine gravel was used in the mortar;
- III. The stage when crushed brick was used in the mortar (with a subsidiary phase of mortar with fine pounded brick).

The mortar used in the walls of the eastern gate (room no. 17), included a bronze coin of Maxentius (Aquileia A.D. 308/309), which give us a terminus ante quem non for the wall's construction with pounded or broken brick.¹⁰ Some walls (Z.III) have been found to contain one kind of mortar at the bottom and another in their upper parts, which indicates more phases of construction.¹¹

We can now postulate from the available data (some of it contradictory), the following sequence for the north side of the fort of Noviodunum. The earliest period comprises the western precinct wall (Z.I) with the semi-circular external tower with a buttress and the rhombic tower, and with the precinct wall inclined towards the north. It is very probable, taking into account the coin discovered in the third period construction, that this part of the precinct wall belongs to the late Roman period, to at least the end of the third century A.D. The wall running towards the north-east may also be connected with the construction of this period, which we think may justify the precinct structure and the position of the oddly-shaped tower with the internal semi-circular side. The line of the wall, the aforementioned tower and the small semi-circular tower to the west, the spurs and buttresses, all prove the adaptation of the construction to the local condition of the ground. It means, taking into account with use of mortar with pounded brick, that the large square tower added later is contemporary with the latest precinct wall, that on the east side with towers 1 and 4. This might also prove that the west side of the precinct still functioned in the late period, when the upper part of the wall had probably been rebuilt and when the large rectangular tower was added to it. The composition of the mortar with pounded brick and not with gravel or pieces of broken brick, as in the western precinct wall with its semicircular towers, may indicate a new phase, or it may be an intermediate stage between the late walls with gravel in the mortar (towers 5-7) and the late walls with broken bricks (towers 1-4), or more probably it may be contemporary with the last. Further proof of the existence of the west wall in the late period is given by the consolidated walls which include the buttresses and Z.II (containing mortar of the type used in the late period) and specially the thick precinct walls (Z.III) which make a clear connection between the two parts or two principal periods (early and late) of the walls of Noviodunum fort.

The second stage is represented by the 4 m-thick wall with towers 5, 6 and 7 with fine gravel in their mortar. Despite the difference in mortar composition, the form, size and spacing of the towers closely resembles that on the east side, with towers 1-4, and presumably represents a stage immediately anterior to the last one (dated by the coin of Maxentius, and therefore to Constantinian times at the earliest).

We have, therefore, a single enclosure of the late Roman fortress at the end of the third century started in the time of Diocletian, and perhaps in the first 2-3 years of the 4th century, and continued (or rebuilt) in the time of Constantine the Great, after A.D. 309-310.

Further proof that we have a single late Roman precinct with towers 1-7 is given by the entrance-gate with its towers (nos. 4 and 5) very close together, and which have a different mortar composition. The final rebuilding might be generally dated to the period of Anastasius and Justinian.

However, despite the lack of stratigraphic evidence concerning the periods of construction, we can make some deductions especially concerning the western part. The thickness of the precinct wall, the U-shape of the towers and their spacing, all prove that from tower 1 to tower 7 the north side of the fortress was in use from the 4th to the 6th centuries.

Near the north wall various buildings have been discovered, among them the *thermae* and a basilica.

Noviodunum had (according to P. Polonic) a roughly triangular shape. The excavations of 1956 have only defined the line of the north wall along its eastern half, without determining its connection with the other sides, but aerial photographs have permitted us to construct a more accurate plan of the fort,¹² more complex and different in some respects from that recorded by P. Polonic. The fortress has the general form of a long trapezium with the western side narrowed, but the other sides perfectly straight. The west side, which is the shortest, has suffered extensive destruction. The long side, with a north-west - south-east orientation, after following a straight line for a third of its length turns northwards for a short distance before turning back to the earlier line, finally turning a little to the north before joining the east wall at a right angle. The east side runs in a straight line for a third of its length and then it changes direction towards the north. The line of this side could be seen both in the limits of the deposits of occupation material extending from the fortress and the direction, also easily visible, of the ditch in front of the walls, that follows the long south side for its entire length.

The quality of the photographs and the much disturbed ground did not allow location of the towers and gates. However, an entrance into the fort has been presumed to exist in the south-west corner, up to which runs an ancient road coming from the south-west, which is flanked by some tumuli. There might possibly be an entrance in the middle of the southern side and another on the eastern side.

In connection with the area inside the fort, examination of aerial photographs did not reveal the plan of the final urban stage. Still, it is very important to note that on the photographs taken in 1969, an anomaly consisting of a dark strip accompanied by a light one could be seen crossing the fort from the south-west to the north-east in a straight line, starting from a point on the southern wall a little to the west of the centre and reaching the north wall where the late wall projects out from the bank (Z.III). This observation from the aerial photographs, corroborated by the fact that precisely at the point of junction the late north precinct wall turns south, led us to suppose that the latest north precinct no longer included to the west the entire area of the fortress, but only a more limited extent of ground.

Therefore, we would have in the late Roman epoch a halving in area from the previous limits, the fortress having a trapezoidal plan.

Information about the extra-mural area is almost completely lacking, except for the mention by P. Polonic of an extensive settlement and of a 50 m long rampart on the east side. Aerial photography has also revealed very important features in this area. Three earthen fortifications have been revealed, with concentric banks and ditches, designed to protect the settlement outside the fort walls. The fortifications run parallel to, and at a distance from, the east and south sides of the forts, starting from the Danube bank.

The defence nearest to the fort starts at 170 m from the north-east corner of the fort and starts by running parallel, with its eastern side, after which it describes a curve corresponding to the south-east corner of the fort. The bank is very well preserved and the ditch is deep. The bank had no stone revetments, as can be seen from the few sections recorded. Along the curved section and for a distance along the south side, there is a second bank running parallel to the ditch on the external side. The last section continues in a straight line from east to west diverging away from the fortress. The interruption of the bank in the south-east corner corresponds to the ancient road which ran up to the fortress.

The middle earthwork follows the line of the first rampart, sometimes approaching within 30 m of it, but follows a more irregular line, not so well preserved because of agricultural works. It reaches the water's edge at the same point as does bank I.

The third earthwork protects a wide area, about four times greater than the fort itself. It generally follows a wide curve and is furthest away from the fort on the south side.

Aerial photographs have thus revealed a large extra-mural area enclosed by three concentric lines of earthworks with banks and ditches, showing at the same time the great fluctuations in size of the big urban fortified settlement of Noviodunum at different periods.

The problem of the dating of these earthworks and of the extra-mural areas remains in the stage of hypothesis; it can only be solved by further excavations. For a relative chronology we can use the general historical data available to us on urban development in Scythia Minor, which would indicate that the most extensive extra-mural area, that is the third earthwork, dates from the 2nd-3rd centuries A.D., while the nearest earthwork to the fortress, that with the ditch and two banks, is the latest (5th-6th centuries).

The most favourable conditions for the appearance and development of an occupied area of such large extent as that protected by the third earthwork were found in the 2nd-3rd centuries A.D. In late Roman times the forts themselves contract (Capidava, Noviodunum, Histria).¹³

The early fort of Noviodunum was remarkably large, the long sides each measuring approximately 500 m. It has been proved archaeologically that at least on the east side the early fort was larger than the one dating from the 4th-6th centuries A.D. The period of maximum extent belongs very probably to the 2nd-3rd centuries A.D., the time when large extra-mural settlements are developing east and south of the fort, surrounded by earthworks

(line III). It is difficult to decide when this defensive line was constructed. We might think of the invasion of the Costoboci in A.D. 170. We also do not know how badly Noviodunum was affected by the crises in the 3rd century, but that it was affected is shown by the construction at the end of the 3rd century and the beginning of the 4th of a new earthwork following a different line on the northern and eastern sides, and probably enclosing a smaller area.

We think it plausible to suppose that this new construction must be closely connected with the installation at Noviodunum in the last years of the 3rd century of the Legio I Iovia. The new fort must be the work and headquarters of the new Legion, having a military type of wall with all the late architectural characteristics. The analogies with Troesmis-East erected by Legio II Herculia and with other late forts are obvious. The fact that Legio I Iovia and Legio II Herculia were first created on the occasion of Diocletian's military reforms indicate that the new forts were erected at Noviodunum and Troesmis in the time of the Tetrarchy.

We have archaeological data only for the north and east sides which remained in use, with rebuildings, until the 6th century. For these two sides, at least, the restoration under Justinian must be understood only as a repairing of the old structures. In the late period, the urban extra-mural area probably underwent two successive reductions in extent.

Topographic research and interpretation of aerial photographs have made some important contributions to our knowledge of the late Roman roads. Aerial photographs show a lot of roads coming towards the fort from various directions, from the south-west and the south. The most important road, following a south-west - north-east line, is also straight and can be seen for 5 km, with aligned tumuli on one side or the other. At a distance of about 1 km from the fort, the road divides. This road runs towards the south, connecting at Libida with the central imperial via. The second road visible on the aerial photographs, lying west of the first and running south-east, also divides at about 1 km from the fort. It is probably directed towards Troesmis.

A third road, running east-west, was probably directed towards Arubium or Dinogetia. In addition to these roads, there was one running along the bank towards Aegyssus and Dinogetia.

DINOGETIA

The fort of Dinogetia is situated on a rocky island known today as "Bisericuța" (the little church), in the territory of Garvăn village. It has excellent natural defences, being surrounded by water and marsh.¹⁴ (Pl. V).

Dinogetia is mentioned by Ptolemy (Geographia, III, 8, 2, 10, 1) as lying on the left bank of the Danube at the mouth of the river Siret. The Antonine Itinerary (225, 5) places Dinogetia on the right bank of the Danube, between Arubium and Noviodunum. It is also mentioned in the Notitia Dignitatum (Or. XXXIX, 24) and the Ravenna Cosmography (IV, 1, 17).

Bricks have been discovered dating from the early Roman period and bearing stamps of the Legio V Macedonica, Cohors I Cilicum, Cohors I Mattiacorum and Classis Flavia Moesica, which would confirm the existence of an early fortification, not yet discovered.

After research and excavations, we come to the conclusion that the fort of Dinogetia was erected at the beginning of the 4th century. An earlier fortification has not yet been found, but only a civil settlement dating from the 2nd century.¹⁵

The precinct wall is 3 m thick and surrounded the rocky plateau (area 1 ha) of the island, the irregular plan of the fortress representing an example of adjustment and exploitation of the conditions and natural conformation of the ground.

The building materials used are schist, bonded with lime mortar, sand and pounded brick. Sometimes the stone alternates with courses of brick. Limestone blocks were rarely used, being employed in conjunction with re-used stones only for the outer face of the principal gate, and for the little west gate. For the rest of the walls the builders used larger stones in opus incertum sometimes alternating with the brick courses. The emplecton is made of the usual caementa, with good lime mortar.¹⁶

The principal gate of the fortress is situated on the south-east side and two other small entrances have been found on the north and west sides. Dinogetia has 14 external towers with rounded fronts. These comprise: three at the east, south and north-west corners; 9 U-shaped towers on the north-eastern and south-western walls; and two U-shaped towers close together, flanking the principal entrance gate. Inside the corner towers and in tower no. 8 at the north corner, a massive pillar supported floors with wooden joists.¹⁷

We shall describe here only some elements of the fortifications (curtain-walls, towers, gates), whose details are best preserved and which are typical of the rest.

Curtain-walls A: 21 m long; B: 22.25 m long; C: 20 m long; D: 20.80 m long; E: 21 m long, and so on. This shows that the towers were placed at regular intervals, at approximately equal distances of 20-23 m.¹⁸ Tower no. 10 consisted of a semi-circular wall connected by two short straight sections to adjacent lengths of curtain wall. The thickness of the walls varied between 2.60-2.85 m. The gate of the fortress is 2.50 m wide. The flanking towers are 6 m deep and the diameter of the semi-circular tower is 16 m. There are exact parallels in the towers at Capidava and Troesmis.

Tower no. 5, which is U-shaped, is 5.50 m wide and 8.20 m deep; the thickness of the wall is 2.60-2.80 m. With only small variations (towers 7 and 8 are larger), these dimensions apply to all the U-shaped towers at Dinogetia.

Tower no. 2 has an elongated horseshoe shape (5.70 m long and 4 m wide). The thickness of the tower walls is 2.40 m. A gateway 1 m wide was made in the fort wall. Only the lower room, used as a store, survives. The platform and the stairs were made of wood, in the author's opinion.

Tower 2 is built directly on the rock, being bonded into the wall of the fort. The external face is built of blocks and the emplecton is of caementa. The mortar is made of lime, sand, gravel and a small proportion of pounded brick.

The entrance gate. Initially, the south-eastern gate at Dinogetia consisted of an opening 2 m wide in the precinct wall, that was closed by a folding door locked by a wooden bar, the sockets for which survive in the lateral walls. The entrance was defended by a quadrilateral interior tower (11 x 8 m), in the north-west wall of which was a second entrance, 2.50 m wide. This system is almost the same as that at Sacidava, allowing for the differences of plan and situation.

The entrance gate was defended outside by two U-shaped towers, 6 m apart. Their form is the same as those at Dinogetia and their positioning is characteristic of 4th century fortifications.

The late Roman fort was built directly on the natural rock. Because of the irregularities of the rock, two successive levellings were undertaken, represented by two massive deposits in which are found pottery from the 1st - 2nd centuries, and above which lie the 4th - 6th century levels. The ground was levelled so that the curtain-wall could be built directly on the rock, at a level 1.50 m above the foundations of the wall of the corner-tower.¹⁹

Another observation made as early as 1951 concerns the way in which the internal walls were constructed: the stone walls bonded with clay belong to a late period, possibly the 5th-6th centuries, and certainly after Anastasius, but the walls built of better stone (schist) bonded with mortar (lime, sand, pounded brick), sometimes with the stone alternating with brick courses, date from the 4th century (perhaps Constantine I).

Some buildings dating from the 4th-5th centuries deserve closer attention. In the middle of the fort, towards the north-west, a big, rectangular building has been discovered with stone and mortar walls 1 m thick, built using the same technique as the precinct wall. It is paved with bricks and inside it are four big stone and brick pillars to support the roof. It was clearly built at the same time as the fortifications, and is very probably the principia. Another building, among the most important in terms of the plan and urban organisation of the fort, is the basilica. It is located in the southern corner of the fort. It is 16 m wide, the principal axis being orientated northeast-southwest, parallel to the east precinct wall, and 9.70 m deep. The interior is divided into three naves. The apse is at the north-east side. The walls are 0.70 m thick, made of stone (and some bricks) bonded with mortar. The east wall is built onto the fort wall, so the entrance is placed on the west side. The basilica was paved with bricks and the superposing of two pavement levels shows two periods.²⁰ Later, in Justinianic times a pentagonal wall was added on the eastern side around the apse. The nave was divided into three parts and the transverse room of the narthex is missing, which shows that the basilica was built before the 5th century, the narthex being a Greek innovation of the 5th century, specific to the palaeo-Christian basilicae in Constantinople, mainland Greece and the Aegean area in the 5th-6th centuries A.D. It was noticed as far back as the 1953 excavations that it

it was a late construction, dating at the earliest from the second half of the 4th century, very probably from the reign of Constantius II (340-361). At the end of the 4th century or in the 5th century the basilica at Dinogetia was destroyed and was certainly rebuilt in the reign of Justinian.²¹

On the east side, occupying the space between the principia and the precinct wall, there are the ruins of a large house (domus) built in the 4th century. The walls, 0.70-0.90 m thick and, up to 1.50 m high, are built of stone bonded with mortar, continuing in opus mixtum. The entrance is on the east side, and leads to an inner courtyard surrounded by a portico supported by pillars. The pavement is made of bricks. West of this peristyle there was initially one room, later divided into three by internal walls, and to the east another five rooms. North of the peristyle there was a lararium. At the end of the 4th century or at the beginning of the 5th the house was destroyed, and was then rebuilt in Anastasius or Justinian's reign, up to A.D. 559.

This domus, which we consider to be the principia, has great significance for the understanding of civilian life in the fort on the Scythian limes, of town-planning and architecture, of social differences and of the Byzantine style of the architecture of the fort.

The thermae at Dinogetia, a building of a great importance, are situated curiously, outside the defences. The building materials and the mode of construction are the same as those of the defence wall (local stone, brick apses, mortar with powdered brick). The thermae measure 25 x 15 m. They have three apses, two with semi-circular inner faces but with the outer face formed from three straight sections. This is a very widespread type of apse beginning only in the reign of Justinian and those at Dinogetia are the earliest discovered up to the present time, being dated to the time of Constantine I or his sons. The building ceased to exist at the end of the 4th century or the beginning of the 5th century.²²

The town plan of the interior of the fort was modified during the general rebuilding which occurred under Anastasius and especially under Justinian. The 4th century buildings remained unmodified, or only slightly modified. They are still very few (e.g. the principia). Although the majority of these buildings belong to the 4th-5th centuries and were maintained with many rebuildings down to the 6th century, the interior plan of the fort shows most notably the 6th century town plan. Especially in some areas such as sector B, in the 6th century (under Justinian) all the former structures were completely destroyed and the site cleared down to the rock, in order to rebuild new edifices.²³

Despite their seemingly irregular and asymmetrical aspect, the houses of the 6th century define a number of straight, short and narrow streets, part of an overall street plan or road system, and based on relatively parallel and perpendicular lines. The walls of the buildings were 0.70 m thick with foundations up to 1.50 m deep, made of irregular schist or granite blocks and bonded with clay.

In many buildings the upper parts of the walls, above 1.50-2.0 m from the ground, were built of adobe after the destruction and the temporary interruption of life in A.D. 559, in some places, especially in the northern part of

the fortress. Buildings constructed in an inferior technique with some walls bonded with black earth were built over the earlier ruins. According to the stratigraphy, this phase dates from the last three or four decades of the 6th century A.D. There is however a certain tendency towards urban organisation, more obvious in the 4th century than in the 6th. The larger buildings are situated in the middle of the fortress, the big praetorium lying at the eastern end and the principia at the northern end of the main street that ran from the main gate. The basilica occupied the south corner because, when it was built, at the beginning of the 5th century, no other central area remained vacant. Generally, the southern half (sectors B and C), situated near the gate on both sides of the main street and ending with the big central buildings represents a better organised area, more regular, and with large, rich houses, while the north side of the fortress situated behind the praetorium has a winding street system, with modest houses of one or two little rooms.

As early as the 1951 excavations, we noted that the late Roman fortress dating from the beginning of the fourth century had been erected directly on the natural rock of the island of Bisericuta. The rocky surface being irregular, two successive levellings were made initially with two strata of stones, pottery of the 1st-2nd centuries, and earth. Only above these two levelling deposits lay the late Roman stratum.²⁴ It has been found that deposits dating from the 4th century are not always found above these levelling deposits. This is explained by the removal of material and the cleaning of the ground which took place in the 6th century prior to the erection of new buildings.

Although at the time when area A was excavated there were no very accurate records kept of the stratigraphy, still an important fact was noted, namely the existence of two strata belonging to the late Roman epoch. Under the fourth level, dating from the early medieval period, there was a fifth level of earth with red coloured debris comprising different materials (lamps, typical of the 5th-6th centuries, a brick found in situ stamped with the name of Anastasius, a 6th century coin, fragments of unfired bricks from the upper parts of the stone walls bonded with earth which date from this period). Below this deposit, dated by the excavators generally to the 5th-6th centuries,²⁵ (in the present author's view the 6th century), came a level of dense clay, containing pottery (amphorae, high-quality red dishes, lamps and coins of the 4th century, dating from the Constantinian period). The walls in this level were built in local stone, bonded with fine quality mortar (lime, sand, pounded brick), the same as the mortar used in the outer walls of the fort itself, as the authors remarked. These observations indicated a date in the 4th century, the sixth level being therefore contemporary with the occupation that followed the erection of the defence walls from their foundation to the first rebuilding.

It has been established that level no. 5, and in the present author's opinion this thick stratum contains many occupation levels, is also that which contains the large basilica in the south corner of the fort.²⁶ Among its ruins there were discovered six brick stamps with the name of the emperor Anastasius and a fragment of a brick with the stamp Leg. I Ioviae Scy.

Towards the south, near the entrance, parts of a brick pavement are still preserved. This pavement, situated on a sand stratum, lies above the remains of another pavement. The bricks of the second pavement are the same

as those which bear the name of the emperor Anastasius, one of which was discovered in situ, a fact which confirms the view that the rebuilding of the basilica took place at this time. The earlier pavement thus marks the initial erection of the basilica.

Clearly the erection of the basilica must post-date the construction of the fort walls. A later dating is also supported by the marginal position of the building in the overall town plan, which very probably indicates that at the time when the basilica was built there was no free space available in the central part of the fortress, the centre already being occupied by large official and private edifices such as the praetorium, a big domus and the street system. Some annexe rooms with semi-circular walls were added in the north-east side of the apse, parallel to the apse wall. The two buildings have stone walls bonded with yellow clay in contrast to the rest of the basilica with its mortared walls, which implies a third stage of rebuilding. This third stage is dated to the 6th century, a dating which is supported by coins; a coin of Justinian, dating from the years 538-539, was found in the wall separating the north and central naves, near the apse.²⁷

In sector B the same stratigraphic and chronological succession was established.²⁸

These discoveries covering a long period of time, from the 4th to the 6th century, together with the three phases of the basilica, all these later than the construction of the fort, lead us to presume that in the fifth stratum there should be more occupation levels, at least four to Justinian or Justin II and Sofia. One of the sections confirms this: on the north-west side of sector B a complete stratigraphy has been observed, ranging in date from the 2nd to the 6th centuries with six levels (Pl. VI).

- L. I - level dating from the 2nd century A.D.
- L. II - level dating from the first half of the 3rd century; extensive destruction due to the Gothic attacks.
- L. III - level dating from the second half of the 3rd century, with extensive reconstruction and a violent destruction.
- L. IV - level dating from the 4th century A.D., the period of maximum development, the fort's reconstruction, ended by a destruction (perhaps by the Huns).
- L. V - level dating from the 5th century A.D.; the occupation is contracting.
- L. VI - level dating from the 6th century A.D., Justinianic period.²⁹

The level dating from the first half of the 3rd century reveals extensive destruction. The same situation is met with at Sacidava, where L. VIII in excavation III shows the most burning. In the second half of the 3rd century, a reconstruction took place in both forts. The 4th century was a time of construction ended by destruction (at Sacidava, L. VI in excavation II). The most important gain from the excavations made in this sector of Dinogetia, from a stratigraphical point of view, is the finding of a level dating from the 5th century A.D.

It is worth emphasising the existence of a stratigraphical succession similar to that at Sacidava: two levels in the 4th century; more levels in the 5th century and exactly three levels in the 6th century A.D.

On the other hand, the evidence outside the forts of five or six burnings in the 5th - 6th centuries (different from the situation inside the fort) can be explained by some attacks having affected only the areas unprotected by walls, without having penetrated inside.

One of the most important observations made repeatedly during the excavations in the fort, was the presence of a thick and very widespread burned stratum. The majority of the houses in the fort were destroyed in this violent conflagration, which on the basis of many datable objects discovered in this stratum, together with the information given in the literary sources, can be dated with certainty to the middle of the 6th century.³⁰

All the buildings lie at a depth of about 2.20 m, sometimes even at 2.50 or 2.70 m, being easily recognized by the massive deposit of burned debris 1.50 m thick, containing, besides the remains of house walls, numerous artefacts whose typological analysis has yielded important elucidation of the stratigraphy and chronology of Dinogetia: fired and unfired bricks, tiles, nails, dolia, amphorae, lamps, various pottery and coins. The house ruins cover the streets. The houses were of various sizes but were generally not very large, some having 1 or 2 rooms, or with storage-rooms (4-5 dolia). The majority of walls were 0.70 m thick, built to a height of 1.50 m, from irregular blocks of schist or granite, bonded with clay. The upper parts of the walls were of thick, moulded, unfired bricks.³¹

Excavations in rooms 1 and 2 at Dinogetia led to interesting observations concerning the mode of construction of the houses in the first half of the 6th century. Here, besides unfired bricks, there were also discovered pieces of wall-plaster backed with clay, having on one side, carbonized impressions of pieces of reed, and on the other side a thin and smooth surface of lime. Some evidence as to the construction of roofs was also found. They were probably made of beams covered with imbrices and tegulae.³²

In almost all sectors it was noted that after the destruction by fire in the middle of the 6th century, the old houses which had not been destroyed, were dismantled and the materials so obtained were used to build other, more primitive, houses. Furthermore, in room no. 11, above the burnt layer, other small houses were built, some walls being the old ones re-used. We can observe two stages in this reconstruction.³³ This leads to a very important conclusion, that at Dinogetia in the second half of the 6th century there are perhaps more phases, that is at least two occupation levels post Justinian. Other observations prove that the dismantling following the burning was not general, some walls from the first half of the 6th century being strong enough and maybe tall enough to continue in use.

The later excavations (1958) led to the conclusion that there were three construction phases in the burnt level, that is to say three levels at Dinogetia dating from the 6th century up to 559.³⁴

Conclusive evidence for our theory about the additional levels in the late Roman stratum is given by the stratigraphy revealed in the extra-mural excavations at Dinogetia in 1958, in excavation 5 where the following levels were found, from the surface down:³⁵

- Three layers of intense burning, consisting of yellow-orange ashes, 0.30 m thick, with a lot of charcoal at the bottom, separated by grey-brown earth (the so called 'floor levels'), These levels come from burning of wooden houses and date from the 6th century.
- Burned levels, earlier and less marked which may date from the 5th century.
- Level with walls, dating from the late 4th - 5th centuries.
- Level with good brick pavements, dating from the first half of the 4th century.

The remains show the character and evolution of the extra-mural houses. Though in the fourth century the buildings were well constructed with brick floors, they had fallen into decay by the end of the century or the beginning of the 5th century, when houses with walls bonded with clay are built, and later on, in the 6th century, the extra-mural houses were only wooden huts.

The fact that in the 6th century the extra-mural area of Dinogetia was occupied, houses and ovens having been discovered there,³⁶ forms a contribution to the topography of the fortified settlements on the limes in the 6th century.

Stratigraphic analysis reveals the following picture of Dinogetia. Not long after its erection at the beginning of the 4th century, at the end of the 4th or the beginning of the 5th century, the fort was destroyed, perhaps by Goths. At the end of the 5th century, in the reign of Anastasius, the fort was rebuilt, the most important evidence for this period being discovered in the basilica. Reconstruction began under Anastasius, and was carried on extensively under Justinian. In this period the majority of the earlier walls were completely demolished, sometimes down to the bed-rock, thus destroying all 4th-century remains. New houses and other edifices were built. Of course, some buildings or walls were repaired and re-used; many structures of the 4th - 5th centuries were retained in successive reconstructions until the 6th century when they were burned.³⁷

The bronze coins of the 4th - 5th century found at the base of the burned level, very probably remained in circulation until the 6th century. The coins of Justinian cease 7-8 years before the end of his reign. Coins re-appear not earlier than the reign of Justin II (566), the series then continuing without interruption to Maurice Tiberius (591/92). In zones A and C, for example, no coins of the Emperors following Justinian (Justin II, Tiberius Constantine and Maurice Tiberius) were found in the burned level dating from the first half of the 6th century, but only above it in the levels containing walls bonded with black earth.³⁸

The literary sources, after six years of silence, mention a major invasion of Kutriguri led by Zabergan, to whom were added groups of Bulgars

and Slavs, and in March 559 Dinogetia, situated on the invaders' route, was sacked and set on fire. Above the ruins dating from 559 some modest buildings were built in some areas, especially in the northern half of the fort where the ground was higher. These were of a rudimentary construction with walls bonded with black earth and outside the fort wooden huts were constructed. This level dates from the last three decades of the 6th century.

TROESMIS

The ancient Troesmis was situated at Iglita, as is shown by some inscriptions discovered as early as in 1860. Iglita-Troesmis is therefore a starting point for the identification of other forts in the North-West Dobruja, especially on the basis of calculating and interpreting the distances recorded in the ancient itineraries.

The extensive archaeological site of Troesmis, with its two forts and the surrounding urban area, was the first site in Dobruja to be investigated by excavators (1865). Unfortunately their sole purpose was the discovery of inscriptions.³⁹ Consequently these excavations yielded no information on stratigraphy or chronology. Nevertheless the general historical data established by Gr. Tocilescu remains valid today, though with some modifications in detail.

The earliest plan of the plateau of Iglita, a plan unknown until recently, was made in 1864 by Engelhardt. The first excavations, led by G. Boissière and A. Baudry in 1865, produced the first plans and records. Baudry drew a location plan of the east fort and an axonometric reconstruction in perspective.⁴⁰ Of these, the location plan remains the only real plan of the excavations at Troesmis carried out at that time, and the reconstruction drawing of the east fort, although it was based only on architectural fantasy for three quarters of the area of the fort, had and still has a wide currency in the literature.⁴¹ A good example is the third (southern) basilica, created hypothetically from elements which in reality do not exist.

At the end of the last century, Gr. Tocilescu excavated at Troesmis, but the results were not recorded. Furthermore, this Romanian archaeologist republished the plans of A. Baudry without any corrections.⁴² Later, in 1902, the old data was extended with some observations by P. Polonic in 1898, who concentrated especially on the outline plan of the entire plateau with the lines of the ramparts and ditches, the majority being new and hitherto unpublished information.⁴³

Therefore of all the topographical data from the 19th century, the only good plan to be followed and checked on the ground is that dating from 1865 of Baudry.

THE EASTERN FORT (Pl. VII-VIII)

The fort is approximately rectangular, the northern side being somewhat at an angle, and with deviations in the other walls caused by irregularities in the ground. This gives the fort an almost trapezoidal shape, with the long east and west sides (approximately 150 m) being parallel, the north side (150 m)

straight and the south side following the bank of the Danube. The thickness of the walls is up to 3 m. At the north-western and north-eastern corners there are horseshoe-shaped towers with rounded fronts, with maximum diameters of approximately 12 m.

The north side, the only perfectly straight one, is also the most symmetrical in terms of the placing and forms of the towers. In its middle there is a large rectangular tower, a characteristic feature of some fortifications in Scythia Minor. The front of this massive tower is about 50 m wide and it is 13 m deep. At equal distances on either side of this there is a U-shaped tower with a rounded front, (width, 10 m; depth, 11 m). On the east and west sides, there are other U-shaped towers at intervals of about 15 m.⁴⁴ On the west side, somewhat to the north of the middle there is the entrance gate into the fort, 3 m wide, flanked at a distance of 6 m by two U-shaped towers.

In the plan we notice in the north-eastern part an area of public buildings, among them two basilicas with their apses facing eastwards. In the south-western area and along the western wall, there are the plans of some small rooms, uniform in size and regularly spaced, with a row of pillars, the remains of military barracks.

THE WESTERN FORT

We know very little about this fort. No stratigraphic observations have been made and as to the plan we only know that two of the towers were rectangular.

Although the existing data obliges us to place both forts in the late Roman period, they are substantially different from one another in terms of their plans. Firstly the plans of the towers lead us to presume that the two forts were not built at the same time. The evidence indicates that the east fort was the headquarters of the Legio II Herculia, newly created and brought to Scythia from its formation by Diocletian which may permit us to date its construction to the Tetarchy. In this case, it is possible that the west fort was built later.⁴⁵

Aerial photography and verification on the ground have made it possible to elucidate the problem of the ditches and earthworks which protect the north-eastern access to the west fort.⁴⁶ These features were also recorded on the old plan (Pl. IX). They consist of three parallel lines of defence (ditches and banks), starting from the bank of the Danube and ending at a brook flowing near the north-western corner of the west fort. The first two enclose only the west fort and do not reach the east one, while the third fortification approaches the north-western corner of the east fort. This may indicate that the east fort was outside the complementary defensive system; more probably it shows that the civilian urban settlement outside the defensive walls evolved around the west fort, at least in the last stages. The third earthwork, enclosing the largest area, may also be the earliest, dating from the early Roman period, when there existed suitable conditions for the development of such an extra-mural urban settlement around the headquarters of the Legio V Macedonica.

Aerial photographs have also established the system of roads converging on the middle of the north side of the west fort, where the principal gate of this fort should be located. The fact that the roads are directed towards the west fort may be another argument for a later date for the construction and operation of this fort (Pl. IX).

The differences between the two forts can be explained by their different dates of construction, and also by their different roles and defensive functions. If the east fort, with its near-rectangular plan, thick walls, numerous and close-set towers, those on the outer walls being U-shaped and those at the corners being horseshoe-shaped, with a rectangular phrourion on the middle principal side of the fort and with a regular urban plan, represents a style of military architecture, the rules of which were finalized between the Tetarchy and the reign of Valentinian, then the west fort appears as a civilian urban precinct.

We believe that the east fort was built by the Legio II Herculia at the beginning of the 4th century, and that the west fort was added at the end of that century as a fortified urban settlement. After the invasion of the Huns, the situation is radically changed, Troesmis no longer being the headquarters of a legion, but having a normal garrison like the other forts. In the 6th century, the roles of civilians and frontier guards are no longer separated, and they are probably confined to the west fort, as is shown by the road system and the evolution of the defensive earthworks. This withdrawal into small fortifications, or the construction of new fortifications of reduced size, is sometimes characteristic of the 6th century on the Scythian limes (e.g. Carsium, Noviodunum).

BEROE (Piatra Frecăței)

A large building has been investigated, forming a closed complex (belonging to the third level), dated with certainty to the second half of the 6th century, and probably to the years 580-590 or to the succeeding decade by coins of Justin II and Sofia, 575/76. It is important to note that this, the last Roman level, which is isolated from the medieval deposits by a sterile level, was destroyed in a violent fire. Thus, the fortifications at Beroe were completely destroyed at the end of the 6th century.⁴⁷

The only other excavations have taken place in the cemetery, with important results for the entire Roman period, but especially for the early part.⁴⁸

The settlement was unfortunately explored only in part, revealing buildings which were occupied in the 6th century and which had the general character of barracks. No information was obtained as to the plan of the fortifications.⁴⁹

CARSIUM (Hirsova) (Pl. XLV/2)

We have only few pieces of information on the topography and stratigraphy of the fort of Carsium, although excavations took place there in 1938.⁵⁰

It seems that the Roman-Byzantine fort had a sub-rectangular plan with thick walls, which followed the conformation of the ground.⁵¹ The fort had no towers, according to the old plans, but we think that this will not be confirmed by future excavations.

CAPIDAVA (Pl. X)

The fort of Capidava was built on a rocky plateau, on the bank of the Danube.⁵²

The walls enclose a rectangular area surrounded by a deep natural ditch which was modified on the north-western and north-eastern sides by the builders of the fort, leaving only a narrow neck of land at the eastern corner for the access road.

The south-western side has fallen down the Danube bank in the course of the centuries.

At Capidava too, the plan of the fort was determined and favoured by the natural formation of the ground.

Despite the apparent regularity of plan, only the north-eastern side is symmetrical, while the north-western and south-eastern sides have only one tower each and these differ in plan, function and dimensions. Furthermore we do not know how the vanished sections of the fort walls were constructed.

In the middle of the north-eastern side stands a massive rectangular tower (no. 4), flanked by two U-shaped towers at exactly equal distances, and at the corners by two towers of horseshoe shape. This side reminds us immediately of the north side of the east fort at Troesmis, which also faced towards the enclosed ground.

The North-West side: Wall A.

This wall survives for 11.65 m of its length, the rest having fallen down. It is 3.50 m thick, the foundation being placed directly on the rock. The internal socle measures 0.40 m and the external one only 0.30 m. We should bear in mind the discovery at the base of this wall of an older wall, very probably dating from the 2nd century fort, over which was superimposed the reconstructed fort of the second half of the 3rd century. The emplecton is irregularly made of caementa. The external face consists of horizontal layers of small stone blocks, roughly rectangular, and roughly shaped.

Tower no. 1.

A massive, rectangular tower, measuring 18.60 m in width, the thickness of its sides varies. The front wall is 2.15 m thick. The inner side is 2.50 m thick, and the lateral side 2.30 m. On the south-western side, facing the Danube and so more shielded from attack, there was an entrance

1.40 m wide, which in a later phase was blocked by a wall of stone and earth (probably 6th century). The entrance was originally closed by a door opening inwards, secured by a wooden bar (traces survive of the slot of the lateral walls), the upper part being closed by a brick arch of which five courses remained in situ. The threshold shows two stages of construction before the final blocking. These two stages are confirmed by the tower walls, which show evidence of reconstruction at their foundations and in the emplecton, and by the fact that a new wall passes outside the old foundations, especially the front side, to give sounder foundations.⁵³ In the middle of this tower there are two massive pillars each measuring 2.45 x 1.68 m which supported the floor above.

The external face of tower no. 1 is made of blocks of different heights, among which there were many reused blocks.

It is noteworthy that the lateral walls of the tower are not bonded into the fort wall; which proves that from a certain height, the tower was not an integral part of the fort wall. Probably this was so that in the eventuality of a violent collapse of the tower, the main fort wall would not be overthrown too. The same situation can be seen in the towers at Sacidava.

Tower no. 2 is located at the north corner of the fort. The wall turns east and forms the inside of this horseshoe-shaped tower. This is formed by two short walls which are perpendicular on the two adjacent fort walls, the ends of which are connected by a semicircular length of wall which forms the front of the tower. The east wall is 5.80 m long and 2.55 thick; that on the west is 6.80 m long and 2.77 m thick. The fort wall is at this point 2.77 m thick. Inside tower 2, at a height of 2 m, is a brick course. The two stages of construction can also be seen here.⁵⁴

The north-east side⁵⁵ is at right angles to the north-west side. Because the ground slopes upwards towards the east, the foundations of the walls are built in steps. The north-east fort wall (Wall C) is 22.94 m long. Tower no. 3 is U-shaped, forming an elongated rectangle with a rounded front, extending 9.15 m. from the fort wall. Wall D is 23.42 m long, built of small blocks. Tower no. 4, placed in the middle of the side, is rectangular with the front wall 17.80 m wide and the lateral ones 11.70 m wide and 2.77 m thick.

The outer face is built from reused pieces. Curtain-wall E is 22.15 m long. Tower no. 5 has the same shape and dimensions as tower no. 3. Curtain-wall F is 20.90 m long, and the outer face is made of larger stones. Tower no. 6, in the east corner, is horseshoe-shaped and resembles tower no. 2: The straight sides are 6 m long, the semi-circular front is 25.70 m and has a diameter of 8.30 m. The fort wall is 3.47 m thick here. The tower is faced with blocks and has two socles at the base.

The south-east side forms a right angle with the north-east one. Wall G is 3.47 m thick and 38.30 m long. Tower no. 7 protected the entrance into the fortress. It is rectangular and interrupts the fort wall, extending both inside and outside the fort. The front side measures 10 m and the tower is 13.25 m deep. The tower walls are 2.50 m thick.

THE LAST FORT

The defensive wall of this fort is quite primitive and weak, being built upon the foundations of the old walls and on the debris stratum, all indications of improvisation. A berm 4.30 m wide and a defensive ditch ran round these walls. The dimensions of the fortification show that it accommodated only a small body of soldiers.

Procopius does not mention Capidava, which leads Gr. Florescu to believe that the construction of this fort pre-dates the reign of Justinian, and perhaps to have taken place under Anastasius.⁵⁷ The present author finds it difficult to believe that such a rudimentary fortification without towers could have been built in the time of Anastasius or Justinian, especially at such an important point on the Danube. Comparison with other fortresses, which are small but strong, does not support the hypothesis. One has only to think of the important works which date from the Anastasius-Justinian period such as the reconstruction which took place at Sacidava, Ibida (the second fort), Ulmetum, Histria, Iatrus and so on,⁵⁸ to realise that a fort like Capidava, with an area of about 1 ha, with old walls and strong towers which were even re-used in medieval times, situated on an important ford of the Danube, would not have been overlooked or left un-reconstructed at that time. But

One of the sections from the north-eastern side of the fort clearly reveals four layers of debris outside, but close by, the fort wall. The uppermost layer, 2.50 m thick, belongs to the early medieval period. The second layer was 3 m thick. The lowest layer, 2 m thick, is in fact divided into two by a rubble layer, very well beaten down and 0.10 m thick, under which lie the remains of the first period of the fort, 0.70 m thick.⁶¹ We can confirm that the upper layers of this stratigraphy have been verified over the whole length of the inside of the fort wall. Only on the south-eastern side, along the wall running from the Danube (wall H) did there appear another debris layer, between the first and the second layers, which is explicable since we are here in front of the 6th century fort.

The stratigraphy observed in an extra-mural section perpendicular to the fort-wall, which cuts through a ditch and bank system whose evolution confirms the four main stages of Roman Capidava.⁶² In this section the following stages were visible. Near wall H appears a berm 1.50 m wide (initially it was probably up to 2 m wide because in the 3rd and 4th stage the fort wall was displaced outwards at the same time as its reconstructions), after which begins the defensive ditch 2 m deep, with a horizontal bottom 2 m wide, and a scarp towards the berm 3.60 m long. The counter-scarp is vertical and is 2 m high. Then follows a defensive rampart, then 4 m on there is another ditch. In the second period important changes were made here. The bank was pushed into the ditch of the reconstructed wall, and the second ditch was filled in and changed into a bank. The last periods show almost the same form as the second periods, but with successive raising of the ground level, the latest ditch (4th period) now penetrating inside the fort over the remains of the nearby tower (no. 7), enclosing the later fort.

The stratigraphy is the same in the sections observed in towers nos. 1, 2 and 4.⁶³

At Capidava, also in section A near the fort wall, there was observed the following stratigraphic succession: a first level dating from the 2nd - 3rd centuries; a second dating from the 4th century and a third from the 5th - 6th centuries mixed with early medieval material. The authors note that they did not find a single floor of a dwelling. There are some traces that make us think that in section A at Capidava we can distinguish more levels⁶⁴ (Pl. XIV/2). Thus the first level is dated by coins of Hadrian and Antoninus Pius. Two walls were found in the second level, (c and d) made of stone and mortar, and dismantled in the middle level and long before the date of the third level. At the same level at which walls c and d were dismantled, is found the stone and earth wall b, whose foundations are interrupted exactly when the third level begins. In addition, a coin of Constantius II (337-361) was found on wall c and near wall b a coin of Julian The Apostate (361-363). The two walls c and d, which by their style of construction and their date of destruction are contemporary, and wall b with its different construction and built at a different date, belongs to a second level and is of the second period. Another discovery is interesting: a grave dated by a coin of Licinius (308-324), which disturbs the earlier level but is itself disturbed by walls c and d. This leads us to suggest the following stratigraphic sequence: 1) The first level, 2nd century A.D.; 2) The second period (the grave), the end of the 3rd century or the beginning of the 4th century; 3) the second level, with walls c and d, the beginning of the 4th century; 4) the third level, with wall b, the end of the 4th century and the beginning of the 5th century; 5) the fourth level, generally late Roman, 5th-6th century (Pl. XIV/2).

These datings for the end of the 3rd century and for the 4th century can be closely related to the stratigraphy at Sacidava.

As has been stated, the intra-mural stratigraphy and that of the walls of Capidava are not known, except in terms of the general sequence for such sites in Dobruja, being different from the extra-mural stratigraphy, the last resembling that of other sites in the province.

The same attitude of doubt, considering that the only chronological argument is based on the mortar composition and the system of construction, has also been expressed by Gr. Tocilescu. The discovery of the Constantinian inscription in the debris of tower no. 1 is not firm evidence for the dating of the third period, and the coin of Constantius II can be considered a terminus for this particular construction, though it is not certain whether this reconstruction was general.

AXIOPOLIS

The name Axiopolis is first encountered in Ptolemy⁶⁵ after which it is mentioned in many sources.

Situated on a high plateau on the right bank of the Danube 3 km south of Cernavoda, in front of Hinog island, the fort of Axiopolis, with its rich history and the great attraction of its ruins, has not been systematically investigated. The topographical and chronological references to it are fragmentary, contradictory and have not been verified on the ground.

P. Polonic carried out archaeological excavations here in 1898-1899.⁶⁶ In the late Roman period Axiopolis had two enclosing walls. According to some data, the first walls date from the end of the 3rd and the beginning of the 4th centuries, and the second wall was added to the north in the 6th century. (Pl. XI).

The first enclosure wall is an irregular polygon, adapted to the natural contours, with walls 3.50 m thick built of opus caementicium and faced with parallelipipedic blocks and also with numerous re-used stones from earlier Roman monuments. At the extremities there are two gates, symmetrically placed at the ends of an axial street, flanked by towers.

Inside the first fort there were also found some public edifices lining the principal street, with columned porticos, among which were a three-nave basilica with a semicircular apse.

The second lot of walls form a trapezoidal enclosure and were probably built in the 6th century. They might prove to be the civilian settlement of this period and it may be that the entire plateau, towards the north, was occupied. The second fort had the same thick walls, built in the same technique as the first one. Two gates and a rectangular tower are visible on the plan.

We have no evidence as to the chronology of the two forts, but we can affirm, taking into account their plans, shapes, the technique of construction and the thickness of the walls of the towers, and the plans of the intra-mural areas, that both belong to the late Roman period. The date when they were constructed and reconstructed, whether the second fort can be considered as an extension of the first one or vice versa, or whether one of them was already abandoned when the other was built, are as yet unsolved problems.

LIBIDA (IBIDA)

In the north of the Dobruja, at Slava Rusa, there is one of the largest Roman fortifications along the Lower Danube, covering an area of about 24 ha. It has not yet been properly investigated archaeologically, although its location and size have been known for some time and V. Parvan located here the fort of Ibida⁶⁷ mentioned in Procopius' list,⁶⁸ a name which in fact was very probably Libida (or Libidina).⁶⁹

The only topographical reconstructions are based on aerial photographs, on the basis of which the first plan was made of the fortress at Slava Rusa.⁷⁰ (Pl. XII).

The fortification was situated on the plain, the location being of no military importance except for its position in the centre of the northern Dobruja on the principal north-south road. It also represents the second fortified line of the limes, and protects the interior of the province. In fact there are two forts dating from different periods. This is shown by the way the walls of the two forts meet. At the eastern corner of the smaller fort (I), the south-eastern wall of the larger fort (II) arrives, if we extrapolate it on the plan, at the north side of the corner tower in the northern corner of the small fortress (I). The western wall of the larger fortress joins the front of a rectangular tower. It is obvious that the smaller fortress (I) was built before the larger one, enclosing the hill with walls, but the position of the south-western corner of the first fort and the situation of the two aforementioned towers seems to indicate that the south and west sides of the earlier fort (I) also played an important role in the second fort (II).

The first fort (I). This is smaller than fort II, but this is usual in the late Roman fortifications on the Scythian limes. Its irregular triangular shape is dictated by the contours of the ground. The north-western and north-eastern sides are more difficult to restore, except for the rectangular tower at the northern corner. On the south-western side there was a tower, perhaps circular. The south-eastern side is clear enough with a circular tower at the corner and with three U-shaped towers and a rectangular tower in the middle of the side.

The changes of direction and fragmentary nature of the wall, most obvious on the south-eastern side, clearly indicate more phases of reconstruction of the fort.

Fort II. This occupies a large area and it has a roughly trapezoidal shape. In fact the sides are irregular and broken, although the ground does not justify these irregularities. Clearly, only excavations will explain these matters satisfactorily.

At the corners there were towers with rounded fronts. On the north side there is an entrance gate, flanked by two U-shaped towers, then at irregular intervals there are two more U-shaped towers and a large rectangular tower. On the west side, rectangular towers at equal distances alternate with U-shaped towers. The east side has an entrance gate with two U-shaped towers, then another three U-shaped towers and two more rectangular towers. The south side has a rectangular central tower, flanked by two U-shaped towers.

The lack of any research or archaeological excavations deprives us of information on the chronology and construction of the forts. It is however obvious that both fortifications must be assigned to the late Roman period (4th - 6th centuries) and that the fort I is earlier than fort II. We tentatively postulate that the larger fort (II), to judge from its plan, dimensions and technique should belong to the 4th century, perhaps to the reign of Constantine I and his successors, while the smaller fort (I), taking into account its earlier construction on a hill, its less regular shape, its smaller size and the fact that forts were not built in the 5th century, may be dated to Diocletian's reign, that is the end of the 3rd century.

An additional piece of evidence is given by the similarity of the south-eastern side of fort I to the forts at Troesmis and Capidava.

ULMETUM

Ulmetum fort is situated on a promontory bounded by two steep gullies to the north-east of Pantelimon de Sus village. (Pl. XIII).

In form it is a square with the south corner cut off obliquely, resulting in a pentagon. One corner faces north, another east; these corners terminate two almost equal straight sides that join each other at a right angle at the northern corner tower. The north-eastern and south-eastern sides are protected by deep gullies.

All the evidence indicates that Ulmetum was totally rebuilt using debris and the remains of earlier monuments.⁷¹ In general it is seen to be roughly and hurriedly built, faced with stones or re-used materials placed at random. Also, especially on the north-western and north-eastern sides it is evidently asymmetrical in a manner not justified by the conformation of the ground. All this indicates a fort plan and construction of the late Roman period.⁷²

With some small variation, the walls of Ulmetum are 2.60 m thick, with foundations 2.80-3.20 m wide. On the steeply sloping southern side, the foundations are 1.85-2.50 m deep, but on the plateau (the north-western side) where the ground is stable, the foundations are shallower. The foundations of the wall are constructed from irregular blocks of stone bonded with mortar as caementa. There is a socle at ground level and the wall is set back 0.20-0.40 m, with an outer facing of big blocks. The inner face of the wall is only in opus incertum, but is well built. The disposition of the outer facing-stones is different at Sacidava, Tropaeum and Capidava: the upper parts of the walls are built of small blocks, and only at the base or at the entrances were big or very big blocks, many of them re-used.⁷³

Wall I, running from the eastern corner tower to the north-eastern rectangular tower, is 62.82 m in length. Wall II is about the same length (62.22 m), so the north-eastern side measures 135 m, together with the rectangular tower. The presence of only one tower in the middle of this side can be explained by the existence of the steep gully which naturally reinforces the defences of the fort on that side. This part of the walls was roughly constructed.

The north-western side is not quite straight, with a gate defended by two horseshoe-shaped towers on the northern part and a massive rectangular tower at the south. This side is 135.50 m in length overall, including the gate and tower. The first wall is 27 m in length, the second 15.21 m and the third 41 m. The gate with the tower is 26.50 m wide and the larger rectangular tower is 20 m wide.

The first wall on the south-western side, between the corner tower and the south-west gate, is 17.50 m long and is well built, with an outer face of regular courses of stones, constructed at the base of two courses of blocks of two heights in an attempt to correct the slope and to so make the upper courses horizontal.

The second wall runs in three sections and is 22.15 m in length. The socle follows a curved line but the outer face consists of three straight sections. Because of the configuration of the ground, the wall has massive foundations, with a stepped socle levelled off by the upper courses of masonry.

The third wall, on the southern side, changes direction in the middle; at the eastern end it has a stepped socle, due to the slope of the ground. An entrance into the fort was made in this wall, with a sill 2.50 m wide, later narrowed by a stone and clay wall.⁷⁴ The fourth wall, turning towards the east, has a narrow entrance 2.42 m wide. Two other narrow entrances were found on the north-eastern side, giving in addition to the two large gates, four posterns at Ulmetum.⁷⁵

Ulmetum citadel has 13 towers: three horseshoe-shaped corner towers; four U-shaped towers at the two main gates; and six rectangular towers on the walls.

The North corner tower is the biggest (15.60 m in diameter) because it has a more important defensive role, especially for the defence of the north-eastern wall. The south-west corner tower is only 12 m in diameter.

At Ulmetum, Tropaeum and Libida (north-western corner-tower) the towers have a true horseshoe-shape, forming a smooth curve.

The rectangular tower on the north-east side measures 6.70 m, on the west side, 7.22 m on the east side, and is 10.51 m wide.

The rectangular tower on the south side, near the south-western gate (west side, 7.10 m; east side, 7.80 m; front, 9 m) has an irregular shape.

The rectangular tower on the north-western side is exceptionally large, 20 m; south and north sides, 13 m. It is a *phrourion*, or as V. Parvan has said, a real *castellum civitas*.⁷⁶

Such massive towers are characteristic of military architecture of the late Roman period, and are placed in combination with U-shaped towers on the most exposed side, generally the side which faces the nearest access, or towards the land in the case of sites on the Danube banks. They are encountered at Troesmis, Libida, Ulmetum, Tropaeum, Iatrus, Sacidava, Capidava etc.⁷⁷

The southern rectangular tower is the largest on that side. The front is 13.15 m wide, and the sides measure 10.90 m. The slope dictates that

the base of the tower should be built in steps. There are two more rectangular towers (13.50 x 7.33 x 7.80 m and 12.20 x 8.70 x 9.0 m).

The front of the north-western gate measures 6.70 m in width and the opening of the gate itself is 3.75 m wide. It narrows towards the northern side, and then is totally blocked.⁷⁸

The southern tower has a diameter of 9.75 m and the northern one 9.66 m. Inside the fort, the entrance is narrowed by two pillars.

The north-western gate had no portcullis, but was a folding gate with two wings which closed with one hinge.⁷⁹

The southern gate, from its position and dimensions, was the main gate (Pl. XIV/1). The same conclusion is indicated by the fact that the north-western entrance was built later than the north-eastern one. The south-western gate has a front 7.40 m wide and an opening 3.60 m wide. The depth of the gate is 4.20 m with short walls extending towards the interior, resembling pillars or buttresses. The gate could be closed from the interior (it was a folding gate) and on the exterior it had a portcullis. At a late period, the south-western gate was narrowed by 1.10 m with a wall built of stones and mortar. There was no groove indicative of a portcullis. In comparison with the north-western gate, the south-western gate was more carefully constructed.

The west tower of the south-western gate is 10.50 m in diameter, and the east one 10 m in diameter and 7.80 m deep.

Inside, the whole wall of the citadel is in *opus incertum*, except that the large gates and the precinct wall was made of courses of bricks alternating with courses of stone. Brick was especially used in the exterior of the precinct wall, now fallen down.

Near the modest dwellings which line the precinct wall inside the south-western part of the citadel, a large building was discovered with many rooms and an apse facing towards the north. It is not a *basilica*; at least two periods of careful construction have been noted.⁸⁰

V. Parvan's observations of Ulmetum citadels, concerned especially with the defensive walls and towers, all confirm that there were three phases in the life of the fort in the sixth century on the basis of stratigraphy and styles of construction.

The excavators found, at the socle level of the precinct wall "around the citadel" three burned levels, thus indicating that the citadel was burned three times before it was abandoned. V. Parvan associates these disasters with the Avars without further explanation.⁸¹

A section taken inside the southern tower of the south-western gate offers the following stratigraphic succession from socle level up: 7 cm mortar with sand, at socle level and therefore the level of construction; then 75 cm clay, stones, charcoal and bones; 20 cm debris, with chalk blocks; 4 cm charcoal, ashes and burnt earth; 17 cm debris, clay and fragments of bricks; 4 cm ashes and charcoal; 40 cm tiles and charcoal; 40 cm tiles.⁸² Close examination of this sequence reveals at least two if not three levels with evidence of destruction by fire.

During the excavations at Ulmetum the excavators were surprised at many features which today are readily understood, for example the rudimentary nature of the dwellings of the third period built of stones and clay. Today it is well-known in all the forts of Dobruja and the Lower Danube that dwellings with walls of stones and clay, some of them very modest, are characteristic of the period of Anastasius and Justinian, when only a few public edifices such as basilicas were of superior construction. However, the realisation in 1914 that there were three periods of occupation at Ulmetum in the sixth century is confirmation of the results of the excavations in Sacidava, Tropaeum, Tomis, Histria and so on. Even today, some reports and articles mention only one Romano-Byzantine layer (4th-6th) or, at best, a layer dating from the fourth century and another from the fifth-sixth centuries.

TROPAEUM TRAIANI

The fort of Tropaeum Traiani was built to the north-west of Adamclisi village, in the Urluia valley, covering a flat area of 9 ha. This fort was reconstructed in A.D. 316.⁸⁵

The Traces of Early Fortifications. Recent excavations have led to the discovery of the first evidence of early Roman fortification in the vicinity of the eastern gate. During the second century an eastern precinct wall was built on the same line as the wall of the late period. Evidence for that wall, later included in the wall of the period of Licinius-Constantine I, consists of traces of a herm 2 m wide and of a ditch 1.60 m deep and 6.50 m wide. These features were, of course, associated with the wall of a contemporary fort. It was established that early walls were in use during the two stratigraphic periods N.II and N.III (the second century A.D.). An interior tower gate (TA) on level N.III was built and this was later dismantled during construction of the east gate in Constantinian times. The tower measures 6.30 x 9 m on a foundation 3.50 m wide. The tower was built of limestone without an emplecton core, of which only one course remained near the fort wall. The rest of tower A was covered by the fourth century level.

Tropaeum Traiani has an irregular trapezoidal form. The contours of the site determined the plan of the fortifications, the lines and changes of direction of the walls and the shapes, dimensions and frequency of the towers. The most numerous and closest set towers were built on most of the northern side and on the northern half of the western side. On those sides, the plateau permits the walls to be nearly straight and to meet at a right angle in the north-west corner. Furthermore, at the middle of the weakest point of the wall there was built a large rectangular tower or phrourion, characteristic of fortifications of the Constantinian period in Scythia. (Pl. XV).

V. Parvan also emphasized that the irregular plan of Tropaeum was "determined by the configuration of the ground" in accordance with the Constantinian practice, and compared the site with Deutz fort on the German limes, as he later compared Ulmetum with Troesmis and Evreux.⁸⁶

The whole fort is about 1,200 m long. The width of the fort and U-shaped tower-walls is 2.60 m, that of the rectangular tower is 3 m, and that of the gateway walls between 3 and 4.15 m.

On the north side there are six towers, on the west side seven towers (two of them placed near the west gate), on the south-west side five towers, and on the east side only four towers (two of them placed near the east gate).

Between the rectangular tower and corner tower no. 9, additional walls with buttresses were discovered outside the fort, probably for reinforcement on the sloping ground. The northern half of the west wall, from the west gate to the horseshoe-shaped tower at the north-west corner, was studied and interpreted in the course of Gr. Tocilescu and V. Parvan's excavations.⁸⁷

Tower no. 9, in the north-west corner of the fortress, is built on a base formed of a levelled section of the fort wall. It is horseshoe-shaped with the curve 14.20 m in diameter. The entrance to the tower is an opening 1.42 m wide. Tower no. 10 is 10.44 m deep, and the width is 9.64 m. Towers no. 11 and 13 have about the same dimensions (2.55 x 12.18 and 12.06 x 11.70 m). Tower no. 12 placed in the middle of the west wall of the fort, is the only large rectangular tower (phrourion), with a front of 24.85 m, sides of 8 m and 3 m thick, widening to 4.40 m towards the fort wall (Pl. XV).

The lengths of wall between the towers are roughly equal, being between 16.50 and 21 m long. The intervals are longer on the south-west side, being between 25.50 and 60 m (in four cases over 40 m), as is justified by the steeper gully on that side.

The five towers between the north and south gates are between 8.50 and 9.50 m deep and vary in width between 9 and 9.75 m.

The east gate has an opening 2.60 m wide flanked by two U-shaped towers (T.1 and T.22) 14 m deep and 12 m wide (Pl. XVI). T.22 was not of one build with the foundations of the fort wall, which means that they were not built simultaneously. Tower T.22 was built from level IV A. It may have been a gate with a portcullis. The west gate (Pl. XVI) is flanked by two U-shaped towers (14 and 15). They are 12.20 m deep and 11 m in diameter. The width of the wall was 2.80 m. The entrances into the towers from the fort were 2 m wide. V. Parvan considers that the towers of the western gate would have had, besides a ground floor, two more floors. The gate had an opening 4.40 m wide. Having no groove for a portcullis but only sockets in the lateral walls and traces visible on the pavement of the action of the gate and traces of the bolt in the middle of the threshold, the gate was closed with folding doors.⁸⁸ The western gateway was faced with re-used stones.

V. Parvan thought that access was over a ditch by means of a suspension-bridge, because the sill of re-used stones was very high, and the drain under it was 1.20 m deep.⁸⁹ Recent excavations do not support this hypothesis.

The south gate does not compare in scale or form with the two main east and west gates, and it lacks lateral towers. Instead, this gate, which is only 4 m wide, is flanked by two transverse walls on the fort wall, 3.30 m wide and 7.60 m long. Moulded stones and inscriptions were re-used in their construction. The entrance is not horizontal, but slopes steeply with high steps making it inaccessible for carts. Parvan believed, unlike Tocilescu, in the existence of a suspension-bridge, but recent investigations prove the absence of a defensive ditch.

In the course of excavations carried out between 1970-1974, a period of the fort wall was noted which predated the building of the fort in A.D. 316.⁹⁰ This phase of the fort wall at Tropaeum survived only as a foundation. On the southwest side the foundations of six towers were discovered, interesting for their style of construction.

It is clear that in this period, external U-shaped towers were much rarer than in the structure dating from A.D. 316. In the Licinius-Constantine I period the new fort walls were constructed on the earlier foundations only in the case of the fort walls. The new towers were built on new foundations and were larger and closer together than had been the case in the earlier fort.

The same situation applies regarding the defensive system and the two successive building periods at Tropaeum, which are the same as those which we find in Dobruja at an as yet unidentified fort of the North Scythian limes, known only from the ancient literary sources.⁹¹

In fact, Tropaeum was not built up entirely anew in the time of Constantine I, when a phase of construction already begun was continued. It is difficult to date precisely when this first began. A date is given by a coin of the Diocletianic period, A.D. 288-289, found in sand in the foundation-trench of one of the towers. Taking into account the characteristic features of the first fortification plan (irregular walls made level to the ground, the width of the walls, outside U-shaped towers) we cannot propose too early a date, perhaps A.D. 284-288, at the earliest in the reign of Aurelian.

During early excavations of "the marble basilica" four phases were noted: I. Constantius II, about A.D. 350; II. The period after the Gothic attacks in Valens' reign, about the period of Arcadius (395-408); III. Justinians' reign (527-565), when it was rebuilt as an episcopal basilica, a baptistery being added; IV. A final rebuilding and decoration, left unfinished, taking place in the reign of Maurice Tiberius, about A.D. 590.⁹²

In the opinion of the present author, Diocletian began the work of extension of the new fort, construction that was interrupted by the invasions of A.D. 295, after which the work would have been resumed with some modifications of the initial plan, especially in the increased number of towers, a lesson learned from the experience of the attacks of 295. It was scarcely finished in the reign of Constantine I.

As regards the stratigraphy revealed by the excavations carried out between 1968-1975, the recently published monograph included only one section (SI-Ia, in sector D), with a few isolated datable finds, while ignoring (surprisingly), the rich, clear and interesting stratigraphy revealed in other areas (D and especially C) at Tropaeum. We consider that, without a synthesis and correlation of all dates and observations, no hypothesis in the above book should be taken into account.

The levels from SI-Ia should be as follows: (Pl. XVII)

- L. I. Dacian layer, pre-Roman
- L. II. The layer of the first period of fort construction, with berm and ditch, dating from the second century A.D. up to A.D. 170; intense fire and invasion of the Costaboci.

L. III. End of the second century to the third century; rebuilding of the defences (tower A); intense fire;

L. IV A. A long period; the new late walls are built from the end of the third century (Aurelian-Diocletian-Constantine) to the end of the fourth century (?)

L. IV B. The first half of the fifth century; the rebuilding of the fort walls.

L. V. The period from Anastasius to Justinian.

L. VI A. Justin II - Maurice Tiberius; fire (the invasion of 586-587).

L. VI B. The last level; up to the first half of the seventh century.

In the years 1971 and 1972 we carried out excavations in the intra-mural zone C on the southwest side of the fortress, with important results as regards the stratigraphy and town-planning of the late Roman period.⁹³ (Pl. XVIII).

Section C19 Perpendicular to the fort wall.

Small squares 16-20

About 1 m deep, under a thick deposit of debris containing unfired brick, tiles, bricks and sherds, was found a solid level of clay with brick paving on which there was a layer of ashes and charcoal, evidence of a fire that destroyed the dwelling. The walls of this room were of regular cut stones, bonded with clay. This first level was called L. I. Pottery, lamps, coins and building materials date level I to the sixth century, this being the last general urban level in zone C at Tropaeum. This level is encountered in all sections cut in zone C, which have the same composition of deposits and archaeological material. On the western side, near the transverse wall A, there was an area of 6 sq. m where there was no L. I. In that area, we found four raised floors heated by hypocausts, with a stoke-pit to the north in situ.

Section C.23 (Pl. XVIII)

Small squares 12-17

Here we found one of the most interesting stratigraphic illustrations of the last phases of town life in zone C. The excavated area lies to the east of wall X and west of wall Y, both of which belong to the general level L. I.

Under the topsoil (0.65-0.75 m) was a clay layer L. I₁ disturbed by removal of stones, which continued over wall Y which had previously been dismantled. On that level (L. I₁) there were rudimentary walls a and b of stone and earth, without foundations, placed directly on L. I₁. This level has a hard surface and has traces of stone paving. This level passes over wall Y.

L. I is well represented on the western side of wall Y, as a deposit of trodden clay with solid traces of burning.

In front of walls a and b, is wall c, fairly neatly constructed but without foundations, placed directly on a second level L. I₂.

Traces of flooring under wall b indicate a blocked entrance.

These observations indicate a conclusion of particular interest: the existence of three stages of rebuilding and modification, later than the general level I:

The first stage = L. I₂ + pavement + wall c.

The second stage = L. I₁ + wall a + wall c

which continues at least on a certain portion.

The third stage = blocking of entrance with wall b.

We observe the existence, in the sixth century, of two urban zones. One lies to the east, towards the centre of the town, with large private buildings with many rooms, solid walls with deep foundations, pavements and hypocausts. The second zone is near the edge of the town, towards the west, and is characterized by modest dwellings, with slight walls. The different alignment of the walls in the two areas should be noted.

Therefore in zone C at Tropaeum (sections C19, 20, 22, 23 and 24) our excavations revealed one general level (L. I), continuous and urban in nature, which appeared at a depth of 0.60-0.70 m. We can date this level by 14 coins of Justin II-Sophia, dating from the years between 571-572 and 582-583, which were found in it. Below this level, beneath the pavement of the room with a hypocaust, we found a coin of Justinian, 543-565.

The life of that level was interrupted by a fire, which was more marked in certain zones. It may be asserted that after this destruction, life of a generally urban character stopped and was not restored in its previous form in this area. The earlier walls were not rebuilt afterwards, with some exceptions. It is most important and significant that in certain zones, we found a later level than L. I, though of a poorer character, which passed in many cases above the ruins of the old walls of period L. I. We find old walls of period L. I re-used, probably with new superstructures built on them, and re-use of old foundations.

In C23 the stratigraphic sequence was clear. Here there was the same deposit L. I, the debris of a large dwelling destroyed by fire. Exactly over the destroyed eastern wall, passed a new solid clay level on which were built two walls of stones and clay without foundations. The style and character of these walls, as well as the succession of levels on which these walls stand, prove the existence of three stages, later than the last general urban level of the town. A level (L. I₁) and two building phases later than L. I, were found in the western end of section C23. The relative chronology of this succession of levels is clear, but absolute dating is more difficult. The latest coins from L. I were issued in 572-573, and they could well have circulated for a long time, so we cannot be sure when L. I ended. It is possible that it ended in 586-587, as a result of the invasions of that time. This view was held by V. Parvan, on the basis of a coin of 586, and on the information offered by Theophylactus Simocatta.⁹⁴ But Tocilescu in his manuscripts noted that the inhabitants of Tropaeum abandoned their town peacefully, for he had noted a final occupation level without traces of violent destruction.⁹⁵

Recent discoveries of coins, especially one dating from 590-591, show that Tropaeum continued to be occupied after the disaster of 586-587, until about 602.⁹⁶ As we have tried to show, in zones C and D the excavations show continuity of late Roman life, though reduced in scale and quality. We again emphasize the absence of any traces of fire in layer L. I. The defensive walls were still in use in the last period, after 587, though the life had declined over a larger area of the town. It is possible that life flourished only in the centre of the town, around the basilicas and the eastern gate, the other intramural areas being largely unoccupied.

Important observations relating to the end of the sixth century and beginning of the seventh century were made in sector A (T22), near the eastern gate. Here there were three buildings (E. I, E. II, E. III). "These buildings functioned in the fifth and sixth centuries, in two successive periods, the later having two different phases".⁹⁷

The fire and destruction of the first level took place in 586-587 as a result of the Avar invasions. After that event, the features of the succeeding layers and structures indicate the continuity of late Roman life, even in urban forms similar to those found in the earlier layer, with some modifications. After 586-587, in sector D two occupation levels were noted, which confirms our observations in sector C. Observations made in T22 confirm the view that the defensive wall was rebuilt and remained in use, though primitive in aspect, until the last stage of the occupation of the fortress.

It is plausible to conclude that the latest levels at Tropaeum lie above those of 602, and that the abandonment took place gradually and was motivated not by a war, but the new political and economic conditions caused by the weakening and eventual cessation of Imperial authority.

B. SACIDAVA

(Pl. XIX-XXXI)

The site is situated between the villages of Rasova and Dunăreni, on a high hill on the right bank of the Danube, at the locality known as Musait, where the remains of walls were formerly visible, and chance finds of inscriptions have been made.

Archaeological excavations were initiated for several reasons. The first was the identification from the literary sources and inscriptions of the Musait fort as the ancient Sacidava. Another was the necessity of acquiring a better knowledge of the Danubian limes in the Dobrujan area. Finally, the conditions at Musait-Sacidava for systematic archaeological investigations were unlike those on the other Roman sites on the limes, Sacidava was not disturbed after the seventh century by later settlement or burials, nor was it damaged by agricultural activities.

The name of Sacidava is known to us from the ancient literary sources. Thus in the Notitia Dignitatum Sacidava is mentioned as a settlement in which Cuneus equitum scutariorum was stationed (the southernmost cavalry unit in the province of Scythia), situated between Cuneus equitum Solensium at Capidava to the north and Cuneus equitum Stablesianorum at Sucidava to the south, this being the northernmost unit on the limes, but in Moesia Secunda.⁹⁸ In this source we also find the indications of the location of Sacidava between Capidava to the north and Sucidava to the south. In Procopius this fort is mentioned under the name of Skedeba.⁹⁹

Gr. Florescu tried to locate Sacidava at Topalu, 100 north of Capidava, a hypothesis accepted at the time by some archaeologists.¹⁰¹

In 1956 a tombstone was discovered at Musait; in discussing this inscription, the author put forward for the first time the hypothesis of the location of Sacidava at Musait.¹⁰² The inscription referred to the fourth century exarchus Proclimus. The hypothesis was then accepted by I. Barnea.¹⁰³ In 1964 a milestone at Rasova with a completely preserved inscription was discovered.¹⁰⁴ It was erected in the reign of the Emperor Decius (249-251) and it is both important and informative. It indicates the distance as 4000 paces from Sacidava, exactly the 7 km that separates the ancient site of Rasova-Flaviana from Musait-Sacidava. The discovery of the Decian milestone finally resolves the location of Sacidava.

* * *

Archaeological excavations were started on the hill at Musait in 1969. Although not extensive, the excavations at Sacidava have produced very important results.¹⁰⁵

Although for the majority of scholars the location of Sacidava has been established, some works still use obsolete information (some taken from J. Weise, others from P. Polonic). Thus, the Musait fortress is sometimes

placed either south of the village of Dunăreni, or on the territory of Rasova, or it is even asserted that there are two superimposed Roman forts, of which the exact dimensions are even given: 150 x 80 m and 70 x 40 m respectively, forts that are situated at Musait, south (!) of Dunăreni.¹⁰⁶

Published archaeological investigations and excavations deny the existence of two superimposed Roman forts; there is a fort of the Scythian limes with several periods of development.

The earliest occupation levels at Sacidava are those dating from the 2nd century. Life went on, century by century, up to the first half of the 7th century, with repeated destructions and rebuildings, some general for the whole fortress, others only in certain areas.

On the western side of the defences we noted phases of building dating from the 2nd century. Also the great building in the third trench dates from the same century. The inscriptions complete the evidence for the building of the fort in the 2nd century. Thus, the tombstone of Marcus Valerius, veteran of cohors II Gallorum,¹⁰⁷ seemed to show that between the years 99 and 112 this unit began the construction of the Roman fort of Sacidava. But Sacidava was erected by cohors I Cilicum, according to inscriptions.¹⁰⁸ Another tombstone discovered in the course of the recent excavations was erected in memory of Caius Veturius Verus, a soldier in active service in legio V Macedonica. This inscription suggests the extension of the sector of limes Scythiae guarded by the legio V Macedonica southward by 35-40 km incorporating Sacidava, too.¹⁰⁹ Another funerary inscription recently discovered at Sacidava attests a burgarius for the first time on the Scythian limes, a unit of burgarii in the second century, and very probably in the third century too.¹¹⁰

In the fourth century the fortress was extended at the same time as the construction of new defences. The literary and epigraphic sources also attest the stationing in Sacidava in the 4th century of some military units. Two funerary inscriptions mention detachments of legio II Herculeae at the beginning of the fourth century. The Notitia Dignitatum indicates the presence at the end of the 4th and the beginning of the fifth century of a cuneus equitum scutariorum.¹¹¹

* * *

At present two sides of the defences are completely known, the southern and western ones. These sides were also the most strongly fortified because of the easy access to them, the other sides being efficiently defended by deep gullies. Towers A, B, C, F and G were found on the south side; on the west side, towers D and E; and on the east side, the main gate and part of the curtain-wall at its northeastern extremity.

We have labelled the towers and walls with letters in the order of their discovery, but here we present the fortifications in topographical order.

The Eastern Gate (pl. XIX, XXI)

On the east side we uncovered the main east gate of the fort. The structure and typology of the east gate are of particular interest.

The gate consisted of two nearly square external towers. The walls here follow the contours of the hill. The towers are not large: tower 1, 3.75 x 4.30 m; tower 2, 3.60 x 3.60 m. The thickness of the walls was 0.70-0.80 m. The towers are made of stone and mortar with outer faces of large regular blocks on the sides that face the entrance into the fortress. The inner wall of tower 1 is much thicker (1.60 m).

The stratigraphy of the surroundings enables the two towers to be dated to the fourth century.

From the outer corner of each tower there runs a perpendicular wall 4.40 m long, 1.70 m thick, and 2.50 m wide at the front. Each has an internal section (1.50 x 1.10 m), in fact a new tower (n. 3) that enclosed the entry, forming a very strong system that creates a space usually called "zwinger". It was built of large blocks of stone, and represents a later phase than the two square towers dating from the sixth century. In the space between the two towers, the access road, which slopes outwards, is paved with slabs and big stones and at the entrance grooves made by the wheels of carts are clearly visible. Under the stone pavement was discovered a sewer made of big square bricks. The two entrances of the east gate are 2.70 m wide. The gate enclosed an area of 102 sq. m.

The square towers were built of medium-sized stones, in opus caementicium, with a very strong outer face of large slabs.

The stratigraphy clearly points to a first phase when the entrance was defended by only two exterior square towers, a stage that dates from the 4th century. This level is situated directly above the sterile sub-soil. A second stage is represented by the complex with the three towers and the two entrances, mentioned above. Of course, there are signs of intermediate stages of repair. Unhappily towers 1 and 2, and their corresponding levels outside the walls, were destroyed in modern times, only one or two courses of stones from the foundations remaining, and sometimes only a layer of mortar bearing the clear traces of stones.

The stratigraphy inside the fort clearly shows three levels dating from the sixth and seventh centuries. The dating of the two main stages of the east gate is assisted by a bronze coin of 518-522 (Justin I), found on the pavement in the gateway.

Tower C defended the south-eastern corner. It is a rectangular external tower, with the front measuring 5.65 m, the east side 5.40 m and the south-east 5 m; following the modern demolition, only three courses of masonry have survived at the base of the front wall. The large or very large blocks were laid side by side, giving an especially strong facing. Most of the blocks are architectural fragments or inscriptions, reused for the general rebuilding of the fortress at the beginning of the fourth century.

In the southwest corner of tower C there was a large altar with an inscription on the reverse side, but it had been re-worked and only a few letters survived. Behind the tower, the fort wall has been doubled by a strong new wall, forming a supplementary bulwork.

Tower F is rectangular, the front measuring 10 m, the east side 6 m, and the west side 6.25 m. Only three courses of the base of the front wall survive. It is made of very large blocks laid endways on thus achieving a very strong facing. In this tower, too, numerous architectural fragments and inscriptions from the early Roman epoch were reused. In the west corner an altar was re-used, but the inscription in the exterior face has been systematically re-worked and only a few letters can now be distinguished. We note that old architectural monuments were used, and were carefully and judiciously arranged. Inside, the thickness of the wall was doubled.

Tower B is a monumental tower that survives intact to a height of over 4 m. It is rectangular, the front side length is 9.13 m, the east side measures 4.65 m and the west one 5.32 m. Many stones were re-used in the tower. Six courses of masonry survive from the front face and the seventh and eighth courses left clear traces in the cement. Large, heavy blocks laid one above another were used in building the base and the facing courses at the base of the walls. Also at the bases of the corners very large blocks were used, set alternately crosswise to one another. Pl. XXIV, XXV.

Most of the blocks in the front face of this tower consist of re-used architectural fragments and inscriptions dating from the early Roman period. Thus in the upper course of masonry there is a block from an old monument, which in the external face still preserves the four final letters of a Latin inscription (HENS). It is the only externally visible inscription at Sacidava that was not re-worked. Also in the front face a tombstone was placed with its face outwards, with the inscription entirely removed, while the upper registers that contain only decoration and symbols without lettering are intact. An altar was also placed lying on its side, but with the inscribed face outward, on the eastern corner of the front face. The inscription has been cut away before the block was re-used. (Pl. XXIX) Some large altars were also set at the base of the tower corners, a marble one being remarkable for its fine carving and finish. The inscription is on one of the inner faces. Another altar is noted in the outer west face. In the upper part of the tower missing courses of stones (nos. 7 and 8) are preserved as impressions in the cement with, in reverse, the clear impressions of some inscriptions. The study of the letters show that there were tombstones among the stones removed in the summer of 1976 from tower B. Some other slabs in the front face are inscriptions, but with their faces inwards in the rubble core of the wall.

The base of tower B was built entirely of large architectural fragments, ingeniously placed to fit the desired plan.

As a whole, tower B is one of the strongest, most interesting and best constructed towers at Sacidava.

The style of construction and relationship of tower B with the precinct wall is identical with that encountered in tower A. At the back of tower B, the wall was doubled by a wall 2 m thick, forming a platform, as was the case with the other towers at Sacidava.

Internal tower no. 2. In the middle of curtain wall B (between towers A and B) on the southern defences, we note an unusual method of restoring the

wall. It was broken for a length of c. 2.50 m, in the sixth century, to insert a rectangular tower measuring 2.50 x 2.0 m, with stone and mortar walls 0.70 m thick (T2, Pl. XIX). When this internal tower was built, the fort wall was restored, and a little postern gate was closed by blocking.

Tower A is also rectangular, the front measuring 10.21 m, the east side 6.85 m and the west side 5.51 m. Three courses of large slabs and blocks survived on the front face. Many re-used stones were found here, too, altars in the base and tombstones in the other faces. Pl. XXIII.

Tower A has walls 2 m thick. After a series of alterations the fort wall was doubled with another wall 2 m thick behind this tower. The inner wall (h, that was added later) can be related and interpreted by the stratigraphy in the section I (sq. 8-9). As can readily be seen in Pl. XXVIII/1, wall h seems to have been in use in all the levels in section I, sq. 8-9, that is the levels dating from the sixth century. As to the date of construction of wall h, we note that level IV (dating from the beginning of the fourth century) in sq. 10-11 does not reach up to the wall; it is the oldest level in this zone. On the other hand in the western profile of section I, between LII and LIV, we note a hard, compressed yellow clay level that seems to be a sixth-century pit dug from the first level (level I), very probably for a repair of the wall-base. In any case, wall h functioned in the sixth century (the levels in squares 8-9) even if in the final stage of the occupation of the fortress we cannot prove that the fort walls still served a defensive purpose. We can only suppose that some portions that still stand to considerable heights were used by the last inhabitants of the fort.

The second precinct wall (y) together with external tower A, forms another complex and another stage of construction. We have noted, firstly, that the lateral walls of tower A (Z_1 and Z_3) are not bonded into wall y, so Z_1 and Z_3 have their ends carefully built with smooth vertical faces. Another piece of evidence is offered by the thickness of wall y. While outside the tower, to both east and west, wall y extends 40 cm beyond the corners of walls z_1 and z_3 , in order to give a stronger joint, inside the tower it is narrower and its external face follows the line of one of the faces of the ends of walls z_1 and z_3 . (Pl. XXVIII/1.)

The essential conclusion reached after a careful consideration of the constructional details above, is that the so-called walls of the tower, although they are continuous with the precinct wall y (the wall that forms the fourth side), were built earlier than y, though only slightly so. In this way we can explain the carefully worked faces of the ends of z_1 and z_3 .

We now consider that in tower A there are two constructional complexes, corresponding to two periods. One consists of the defensive tower A with the precinct wall y and the other of the double wall h. The tower itself has two stages (of course, very close in time): first the walls of the tower were built (Z_1 Z_2 Z_3) and then the wall y that closes off the tower towards the inside of the fortress. We also consider the double wall (h) to be later than wall y and tower A. Taking into consideration the levels found in the southern area of the fort, the two stages can be dated between the 4th and 6th centuries. 112 It is certain that in the first stage (in the 4th century on the basis of all the

stratigraphic and epigraphical evidence) tower A and wall y were built as part of the general reconstruction of the entire fort. After strong attacks and perhaps destruction in the 6th century, the old fort wall was strengthened by the construction of a 2 m thick wall inside it. 113

Therefore, we can see here a unique sequence of reconstruction, not seen at the other forts. The initial defensive wall erected in the 4th century, strengthened with quadrilateral towers, was destroyed very probably in the middle or in the second half of the 5th century, and was then rebuilt under the Emperor Anastasius (491-518). In the second half of the 6th century, a new rebuilding of the precinct wall was undertaken, but in a special way, by the erection of additional defence walls 2 m thick, built in the same technique and joined immediately onto the original walls. The section clearly shows that the foundation trench was dug from level I, and therefore towards the end of the 6th century. But taking into consideration that in the profile SI the trench does not extend down to LII and that the wall h is at a deeper level, continuing in the other stratum and in the sterile soil without any further signs of the trench, we believe that a foundation trench was dug in period level I for a reconstruction of the precinct wall h. Furthermore, the trench cuts a part of the original wall (y), exactly at the same level and on the breadth of the foundation pit. This also contributes to our understanding of the chronological relation between the two walls: wall h is later than wall y.

The section obtained inside tower A showed the following stratigraphic succession, conclusive evidence for the chronology of the tower and fort walls in this southern area of Sacidava. From the lowest level up, the first floor level lies on the sterile soil and follows a line that rises in steps towards the interior (to the north) near the wall (y). This is due to the slope of the ground, and it represents a step. On this floor level dated to the 4th century by the pottery and a coin of Constantine, there were deposited successively two strata sloping towards the exterior side of the tower.

Outside tower A the stratigraphy is as follows: Under two thick layers of debris with big stones, lies a thin mortar layer, then a thick layer of grey earth containing various materials. Two other levels follow, with signs of burning, ash and mortar, belonging to the 6th century, then a thick grey layer containing material dating from the 4th-5th centuries. Level with the external socle of the tower walls, there is the floor level dating from the time of its erection and operation, consisting of hard yellow clay, over which have been successively deposited two layers of mortar mixed with ash and clear traces of burning. This level is dated in the 4th century by the pottery and two coins. The level is also marked by a flagstone pavement extending from the southern corner of tower A.

The west side of tower A has a part of its face constructed in opus incertum and a part made of big blocks. It survives to a height of 2.20 m up from the socle foundations, with a part near the curtain wall 3 m high.

Only the southern end, that forms a corner with the front side, was built of large blocks (two foundation blocks laid horizontally measured 1.50 x 0.30 and 1.70 x 0.30 m respectively). Above the foundations, the middle

course, corresponding to that on the front, consists only of a big quadrilateral block, placed lengthwise and measuring 1.80 x 0.90 m. From the upper course there survived only two blocks (0.50 x 0.30 m and 0.40 x 0.40 m). Thus, the corner of the tower is well built. The rest of the face is built of medium sized limestone and schist blocks, measuring between 0.20 and 0.60 m, in opus incertum.

The construction of these walls shows a lack of uniformity of execution, and taken with the various materials used it implies three constructive stages, or one constructive stage and two stages of repair. The tower exhibits a portion near the fort wall, 1 m long, a middle section (1.10 m) towards the front and a section from the corner of the tower made of big blocks. The facing of the blocks covered half of the surface if not the whole side, initially, for the whole length of the socle. After the facing was destroyed, reconstruction was carried out using stones, almost all of them green schist, set endways on, bonded with grey mortar in opus incertum. The rubble core is made normally of opus caementicium.

The inside faces of the tower are carefully worked and are made of medium sized blocks of schist (0.40 m in length), usually placed endways on, thus joining them to the rubble core. Despite the apparent disorder of this opus incertum, the stones of the inside face show careful construction in superposed courses, even if they are unequal. The interior socle is 1.20 m higher than the exterior one. Its stepwise construction may show that the foundations of the tower were also built in steps, following the slope of the ground.

Tower C defends the southwest corner of the fort, and is rectangular. The front is 8.60 m wide, the east side measures 4.80 m and the west side 5.35 m. The front face survives for five courses above the socle. The socle and four course were built of large, thick slabs, laid one above the other. The third layer is built of very big slabs, laid on edge, alternating regularly with transverse slabs embedded in cement. This tower is very carefully faced, recalling Greek parallels. The masonry, of stone and mortar, is keyed into that of the fort wall on the west side only. Here the fort wall changes its direction towards the north in a large curve. It is also to be noted that tower C is not placed in the middle of the semicircular but lies somewhat towards the east. Behind the tower, inside the fort, the wall has been thickened, the result being a strong platform or bastion measuring 4.50 x 8.50 m, onto which a rectangular room has been joined with stairs leading up to the tower (Pl. XXVI, XXVIII, 2).

Although this defensive sector was more endangered by its position at the corner of the fort, the tower is not especially large nor has it a rounded front, like those of the other Romano-Byzantine forts. Its strength lies in its situation on the curve of the fort wall and especially in the massive bastion or platform built inside. Its height must be presumed to have been the same as that of the tower so the defenders could watch and move in any direction.

Tower D is situated on the western side, which is perhaps the most vulnerable point. It is the strongest, best preserved and most monumental tower at Sacidava. (Pl. XXVII.)

It is also rectangular. The front is 14 m wide and the other sides both measure 5 m. The face is preserved to a height of 6.50 m, and together with the rubble core it reaches 8 m in height.

The first point to make is that the face of this tower is built entirely from very large blocks of stone, laid one above another in regular courses, reminiscent of other massive towers in the Greek tradition.

Besides the offset, itself very ingeniously built, there can be seen eight other courses of stones. The front wall, together with the caementa, is 2.40 m thick. The foundations of the corners of the tower have been built of very large blocks. Here also old monuments have been used, especially altars in the facing, but also architectural fragments, especially in the socle foundations.

The blocks lie directly one upon the other. The narrow spaces between the stones were carefully grouted on the surface with fine plaster.

It is also interesting that to produce perfect joints between the big blocks of stone, some of them have been cut specially in steps, a technique that again reminds us of the Greek tradition.

The outer facing shows us clearly how the tower was constructed and the arrangement of courses. The foundations were built at the corners and in the middle, then the facing made of very large blocks, up to a height of 6 m then the upper part was faced with small blocks, the corners being made of large stones.

Tower E is rectangular and 10.26 m wide. Two courses of large blocks survive of the front facing, among which are altars and re-used inscriptions.

It is very interesting that an entrance gateway was opened in the front side of this tower, forming the Western gate of the fort. This gate was 2.90 m wide. The door-sill was built of two big blocks, which were massive re-used tombstones. We may also note the parallel grooves, worn by the wheels of carts. The gate functioned in the 4th century, and after the 5th century invasions it was blocked by a carelessly built wall of blocks of various sizes.

The western gate is situated at the end of the via principalis, which starts at the eastern gate.

A principal gateway into a fort, made in the front side of a defensive tower and not flanked by other towers, remains an unusual feature.

Curtain-wall F is 19 m long, and is preserved to a height of about 3m. It is curious that the entire outside face was plastered with a thick layer of fine mortar, carefully smoothed.

Curtain-wall B is 18.75 m long. It was neatly built of small blocks like the other curtain-walls, in an opus quadratum arrangement. At least two repairs can be seen and there is a narrow entrance gate for pedestrians.

There are many signs of destruction and repair. The facing is preserved to a height of 0.45-1.25 m. A higher core (1.80 m) belongs to the reconstruction stage of the fort walls and the internal tower T 2 also dates from this period.

In three areas especially there is a notable regularity in the construction of the facing of this section of wall, which is distinctly different from the facing of curtain-wall A.

In the first, (western) section which is 4 m long, the face is made of large regular blocks (0.60 x 0.25 m), carefully superposed, giving the impression of opus quadratum. In the second area, a length of 3 m, the facing is very much damaged opus incertum, corresponding to the repairs on the internal tower (T2). The third area of curtain-wall B, 6 m long and preserved to a height of 0.80 m, was faced with opus incertum. However, we may note in the first part a regular course of little blocks (three smaller ones of 0.35 x 0.30 m) and two big slabs set lengthways and measuring 0.80 x 0.25 and 1.10 x 0.25 m respectively with a brick course above. The two big slabs suggest the sill of an earlier entrance, blocked in the last stage.

The last area, 4 m long, near tower B, has a facing of almost regular blocks of dense grey limestone (0.60 x 0.25 m). The blocks were placed in rows, forming opus quadratum. In this area, the outside face was covered with a fine lime and sand plaster 1 cm thick, and a geometric decoration was applied while it was wet. It consists of horizontal strips 20 cm high, separated by double parallel lines 3 cm apart. In the panels so formed are traces of a double spiral (S-shaped) design, arranged so that alternate rows of spirals face in opposite directions.

If the plastering of the fort walls can be explained,¹¹⁴ the decoration of this outside face is most unusual.

Curtain wall A is 18.60 m long and it is carelessly built of small and medium-sized blocks to give opus quadratum.

In the southwest corner, in the front of tower C, at the back of the tower, the fort wall follows a curve, more pronounced towards the western corner, and then continues in a straight line towards the north.

It runs from tower A at the eastern end to tower C at the west. It survives to a height of 0.50-0.75 m, which represents the modern, pre-excavation, ground surface. In the middle it is more than 1.50 m high. It is built of cemented opus incertum and the face is made of irregular limestone blocks all of medium size, but the facing stones have faces concealed within the wall (the stones are 0.20 m to 0.40 m long). The gaps between the stones are fairly large and are filled with white mortar mixed with a lot of coarsely pounded bricks, and is very friable. The mortar often covers part of the faces of the stone, which indicate at least a partial plastering here, as a protection against the weather.

In spite of the irregularities, the middle section of wall seems to suggest the intention of producing more regular stonework.

Curtain wall C. The system of construction of the western wall is entirely different. Above the foundations, from the ancient ground surface, the outer face first forms a series of 3-5 successive steps back and only behind all these is the true face of the wall. This technique can also be seen in wall D on the same western side.

To return to wall C, we notice that this is longer (26.80 m) and is divided into three sections, following the foundations.

In section II (inside the fort), wall C was found at the western end of the section, at a depth of only 1.18 m. It had been destroyed down to this depth.

We have some stratigraphic information. The wall has a socle at the foundation level, situated under the first level from the ground surface, a level that runs up to the regular face of the wall, over its socle. Also, the other two later levels ran up to the wall. So the base of the precinct wall seen in Section II was built in the 2nd century. This is the only acceptable hypothesis on present knowledge.

Short lengths of curtain-walls D and E have been uncovered. Wall E appeared in Section III. The wall was 2 m high, robbed on its outside with only a small part of the facing remaining. Inside the construction indicates two stages.

The first stage is indicated by the 0.40 m wide offset base, carelessly built of irregular stones. In the south profile level VIII (2nd-3rd centuries) passes over this socle, but in the north profile of the section, this level stops in front of the socle. We therefore date the first stage of the wall in this area to the 2nd century, contemporary with L. IX.

The first stage of the wall, with the inside face smoother and more regular, is 1.50 m high. In profile, the only level running undisturbed up to the wall is L. VIII (2nd-3rd centuries), the next levels being interrupted by the mortar-filled pit or by the scraping and levelling which took place in L. IV (5th century).

L. IV represents a period of construction, shown both by the clearing of the earlier levels and the production of new horizontal surface, and also by the pit filled with mortar near the wall which cuts through the earlier levels, so that the most plausible dating for the second restoration of the wall (in section III) is the 4th century.

The second stage of the wall is also the best constructed, built from regular superposed courses of blocks. In section III, this stage belongs to the second half of the 6th century.

In Section III, the defensive wall is severely damaged in the southern part. The breach was repaired, and the endangered section was consolidated by the construction of a second outer defensive wall placed up against the outside face of the original wall. This double wall is 10 m long and 1.25 m thick, and is carelessly and hurriedly built with friable mortar.

So here too we meet with an ingenious new method of repairing and fortifying the walls, imposed by the conditions of the moment and in response to a local problem.

* * * *

Some of the constructions used in the erection of the new, late Roman walls at Sacidava, are interesting and novel, without parallels so far from

other areas of the Empire, and probably representing the adaptation of a general architectural plan to the local resources and conditions.

These observations, correlated with the stratigraphic and topographic evidence, allow us to reconstruct the general plan and the architectural aims of the new fort and the practical way in which these ends were achieved, both in the initial stage of construction and in later reconstruction.

A first characteristic of the late Roman fort of Sacidava, which gives it its original architectural aspect, new in that period and in southeastern Europe, is the fortification of the whole fort wall with rectangular towers. None of these towers, not even those at the corners, has a rounded front, although rounded towers are a characteristic feature of the late Roman period. The model was of course offered by Greek fortresses, primarily Histria, together with local ideas and resources. For example, the constructional method, using massive "cyclopean" blocks, used for the towers, was influenced by the availability of a quantity of very large blocks. This avoided the danger of collapse at the fronts or corners. Another explanation may be the regular spacing of the towers, e.g. the S. side, of 125 m, is fortified with 5 big and strong towers, the lengths of curtain-wall being under 18-19 m. The massive character of the towers justifies the length of the frontal sides.

Another feature of the towers is the massive character of the foundations, very large blocks being placed endways on, laid very carefully and used up to higher levels at the corners, making the towers extraordinarily strong.

In all the towers at Sacidava we find an impressive proportion of re-used monumental architectural stones and inscriptions of early Roman date. When inscribed slabs are re-used, care has been taken to avoid placing the inscribed face on the outside. In most cases where this was unavoidable, the inscription has been removed. All the inscriptions placed with their faces towards the inside of the wall are undamaged.

We may suppose such exceptions or carelessness were still tolerated at the time when the towers were built. Only later, when Christianity ceased to tolerate the pagan inscriptions on the altars and early Roman tombstones, were they defaced. Only the single inscription ...HENS, the end of a word with no pagan significance, remains untouched.

There are some towers with no external inscription (A, C and D), and these may be dated by their plans. All the towers at Sacidava were consolidated in the second half of the 6th century by a double wall built behind each tower, thus forming massive platforms or bastions for artillery. The most massive bastion is situated behind tower C in the southwest corner, this being the most vulnerable area. Schist has been used only for the towers, and especially for their inside faces. This is probably deliberate, to make the towers stronger.

So far the entrances into the towers from inside the fort have not been found. However, in one case when the walls of the towers have been doubled in thickness, stone stairs were used to ascend to the platform, and in other cases access was probably by wooden stairs.

* * * *

We now turn our attention to the principal gates of the fort. On the southern side there was only one narrow gate for pedestrians, which was later blocked. The principal gate, flanked by two square towers and with massive additional fortifications, was found in 1972-74, on the eastern side.

During these excavations, we discovered a second principal gate at the western end of the via principalis which ran across from the eastern gate. This gate was of an unusual design, being the response of the builders to a local constructional problem. Because of the regular spacing of the towers on the western side, which was rendered necessary by the ready accessibility and hence vulnerability of this side of the fort, tower E had to be placed precisely at the western end of the via principalis. The latter formed part of the earlier town plan and could not be altered. An entrance gate was therefore made in the middle of the front of tower E, without the addition of flanking towers such as we encounter throughout the Empire.

Another point which had been noted previously and which was confirmed in 1972-74 over the whole fort is the pronounced difference between the size and strength of the towers on the one hand and of the curtain-wall with shallow foundations (from 0.30 -1.00 m, rarely the latter) and faced in degenerate opus quadratum technique, as is encountered in other forts on the limes. This explains why attacks succeeded in making breaches in the curtain-walls and not at the towers, the latter remaining intact until the 19th century.

One possible explanation is that the curtain-walls may represent a final restoration at the beginning of the 7th century, after other repairs and re-buildings. In this way we could connect the decoration of the walls of Domus I and the plastering and decoration of the outside faces of curtain-walls B and F.

The curtain-walls were built using an opus caementicium incertum technique, and the walls of the towers in opus caementicium but with the outside face made of large or very large blocks, the facing and the core being bonded by the alternation of the direction in which the facing stones were laid.

There are also some interesting structural features in the curtain walls.

Curtain-wall C has its base in 3-5 steps, to prevent the foundations from slipping down the steep slope.

Curtain-wall F was carefully plastered, all over. This is probably a local innovation, protecting the wall from penetration by rain-water. Alternatively, this may represent the desire of the builder to achieve an attractive effect. The neighbouring curtain-wall, B, is plastered all over its outer face, and is decorated with incised spiral design. The same decorated plaster is found on the inside walls of a 4th-6th century house (Domus I).

Between towers A and B, on the southern side (curtain-wall B), after the blocking of the pedestrian gate, a little square internal tower (T₂) was built, in order to strengthen the defences.

On the western side, the breach in wall E was repaired and at the same time the wall's thickness was doubled by the addition of another wall, 1.50 m thick, added outside this time.

Tracing the latest defensive wall at Sacidava, as far as it has been discovered, we can broadly reconstruct the plan of the fortifications in the 4th-6th centuries. We can say that the fortified area in the late Roman period covered about 4 ha (Pl. XIX and XX).

The absence of occupation levels earlier than the 4th (or at least the late 3rd) century in the southern, eastern and southeastern parts of the fort indicate that the 2nd-3rd century fort covered a smaller area than its 4th-6th century successor.

The lines of the late walls do not follow a preconceived fort plan but are determined by the natural slopes of the hill, the walls being placed on the highest points. Here we have a fortress plan adapted to the ground conditions.

In conclusion, we will attempt to make an axonometric reconstitution of the fort.

Experiments were carried out many years ago in restoring the shape and the height of defensive walls and towers for the eastern Scythian fort of Troesmis. We treat the results with reserve.¹¹⁵ Similar work has been done at Ulmetum,¹¹⁶ and more recently at Histria.¹¹⁷ In Oltenia some data have been calculated for Drobeta, Slaveni and Sucidava.¹¹⁸

For a more accurate reconstruction we must start from the established data: the plans, the surviving remains, thickness of walls, construction techniques, and so on, and from our knowledge of the evolution of fortifications in the Roman period. At Histria, the early Roman fort (2nd-3rd century) seems to have had walls rising 5.50-6 m from the contemporary ground level as marked by the socle, and 1.80 m thick. At Drobeta, the walls in the 2nd century were about 4.50 m high and 0.80 m thick. The towers measuring 2.80 x 2.70 m were of course higher than the curtain-walls, probably about 5.50-6 m. At Slaveni, the 1.50 m thick walls rose to a height of some 5 m, and the towers to 6 m or 6.50 m. Therefore there is an agreement between thickness of the walls, the surface dimensions of the towers and their height. The late walls at Histria are thicker (4-5 m) and higher, tower G attaining about 8-9 m above the contemporary ground surface.¹¹⁹ Curtain-wall I, on the southern side, without towers and easy to defend because it faced out to the sea, was about 7.50 m high.¹²⁰ The same is found at Drobeta, where in the 4th century the walls are 2 m thick and the external towers are large (7 x 8 m) and the walls are high.

At Sacidava, taking into consideration the general evolution of late Roman defences and the established data (walls 2 m thick; bastion-platforms in front of walls 4 m thick; large towers measuring 5 x 10 m; the details of the eastern gate) we can estimate that the walls were in general about 6 m high, being probably higher on the southern and eastern sides and lower on the northern half of the eastern side and on the northern side, these last sides both being difficult of access. The towers, especially the eastern gate and those in the centres of the southern and western sides, rose to at least 8-10 m and possibly as high as 12 m.

Sacidava was surrounded by a big civilian settlement covering more than 5 times the area of the fort, from which it was separated by a deep ditch which ran round the southern side and half the western side of the fort.

Aerial surveying has revealed the plan of the civilian settlement and its evolution, and the access roads. The verification of these results of aerial photography is so far confined to surface examination, and no excavations have been carried out. Our data and observations of building techniques with the plans and sections, allow us to attempt a reconstruction of the general plan.

Firstly the restoration and extension of the late Roman fort consistently followed the ground contours so that the defensive wall exactly follows the line of the high ground, above the natural slopes and cliffs.

The defensive towers, stronger and more numerous where the access was easier, are out of the line of the walls. Because the slope is almost everywhere quite steep, probably artificially made at some points, the towers have very deep interior foundations since the ground level inside the fort is some 3-4 m higher than that outside.

The ground level does not descend only as one goes outside the walls, but also falls along the walls from west to east on the southern side and from south to north on the western side. The greatest adaptation and maximum use is made of natural contours, as is best demonstrated by the different structures of the faces of the towers, and even within the same tower in cases where big stones were used only for the vulnerable side, and for the rest small and medium sized stones have been employed.

The author has noted in tower A, what has now been confirmed as a general rule at Sacidava, different stages and in a specific sequence. First, the limits were determined, the traditional agger, with the via sagularis, by means of deepening the ditch outside and sometimes by adding earth on the top. Then the foundations were dug and the towers were raised. Finally, or at least when two neighbouring towers were completed, the curtain walls were built and added to the towers.

Stratified coins, for example coins of Valens from the footings, as well as the fact that only towers B, F and G have inscriptions facing outwards, lead us to propose as a working hypothesis that the new walls at Sacidava were started with the south side, beginning from the southeast corner, then continuing with towers A, C, D, E and so on until the circuit was completed. This period would cover the years from Diocletian to Constantius II, with the reservation that the early walls could have been repaired quickly after the invasion of 295, thus permitting systematic erection of the new walls, with a new defensive conception and using new technique.

We now make some comparisons with other limes forts from the Dobruja.

Dinogetia has a plan with numerous round towers at intervals of about 20 m. The size of the facing stones and the height to which the walls are preserved are inferior to Sacidava.

Capidava combines, according to the fashion of the time, round and rectangular towers; it has two towers with larger fronts than those at

Sacidava (T.1, 18.60 m; T.4, 17.80 m) but also has longer sections of curtain wall to defend (d, 23 m; b, 25 m; g, 38 m). The faces of the towers are built of large blocks only at the base, for the rest small size blocks being used. The height to which they are preserved is inferior to that of towers B and D at Sacidava. The gate of tower 1 is more monumental.

Tropaeum Traiani (Adamclisi) In respect of the sizes of the facing stones, and the height to which they survive, the walls of Adamclisi fort are inferior to those of Sacidava.

Histria: In construction technique, in the size and style of facing of the stones, even in the height to which the walls are preserved, the defences of Histria resemble those of Sacidava. The widths of towers are also similar (Tower D, 9.40 m; Tower E, 12.58 m; Tower G, 15.33 m). However, the curtain wall sections at Histria are longer, from 22 m for wall c to 32 m for walls E and D. The facing blocks of the towers at Sacidava are higher and more massive and the height to which towers B and D are preserved at Sacidava is greater than at Histria (Tower R front, 2.30 m; Tower G, 2.66 m; bastion F, 3.80 m).

But the analogies between Histria and Sacidava are more important and significant from the architectural and constructional points of view. At Histria, in the larger tower G, the curtain wall is thicker by 1 m, making a 5 m deep platform. The corners of some towers were built in the same way (T, F, G, b.G). At Histria, but at rare and irregular distances, some slabs are placed on edge with their length embedded in cement. At Sacidava the construction is perfectly regular. The massive foundations of the towers at Sacidava are paralleled at Histria in the principal gate towers. Also at Histria, some blocks have been specially cut in steps in order to interlock with the blocks of the course below. And finally, at Histria also some inscriptions have been reused in the defensive wall, but less frequently than at Sacidava.

Therefore our observations, analogies and preliminary interpretations guide us to a new conclusion concerning Sacidava. There are many elements of Greek tradition present, for example exclusively rectangular towers (unique on the limes and inside it, except the Greek towns along the sea coast); the massive facing blocks reminiscent of "cyclopean" masonry, massive quoins; alternate courses of stone laid flat and on edge; the massive foundations of the towers; regularly placed slabs set crosswise in cement; blocks cut in steps in order to fit perfectly on the course below; the doubling of the curtain wall behind the towers; the spiral decoration of the tower walls and also of the outside faces of the curtain walls. All these features make us think of an architect imported from the oriental Greek world and culture.

The Stratigraphy

We will select only the most significant and clearest data from a few sections.

Area I Pl. XXX.

The first level (L.II) is not continuous, but occurs only in squares 12-15.

A. In the first section squares 18-15 the stratigraphy is as follows:

- A pit-dwelling was dug in the sterile yellowish clay. This was in fact a timber-framed surface dwelling with a sunken floor containing two deposits, L VI and LV, which showed no signs of burning.
- The abandonment of this building was not associated with any violent events. It was superseded by a floor level (L IV) which in square 19 extended over sterile soil and in squares 18-16 over the pit-dwelling and in square 15 over a layer of clay. Above LIV follows a layer which seems to represent a complete levelling of the site.
- The next level, L III, is continuous up to the retaining wall (square 15).
- Finally, the two last levels, L II and L I.

B. In squares 15-10, first comes a debris layer containing many stones, the thickness varying from 1 m in square 10 to 0.25 m in square 15.

Level L I also appeared in square 12 and 13, in the form of a clay floor surrounded by a circle of big stones. A period L I stone wall bonded with clay, with irregular stones measuring 72-75 cm width, was found in square 9. It was part of a period L I house, destroyed in L II.

L II is a well-defined level of yellowish clay and lies about 20 cm-75 cm below L I.

Under L II there is a 20-65 cm thick layer of sterile clay without any archaeological remains, under which there is a thick layer of burnt red earth mixed with great quantities of tiles and bricks but only a few stones, many sherds, and at the base of the layer, directly on level LIII, clay weights, stone querns, burned wooden beams and a layer of ashes and charcoal. The burned material and ashes lay on a well-beaten solid yellow clay floor, which exhibited slight irregularities and small hollows produced by falling stones and beams. Two round stone bases (diameter 30 cm), very probably for columns or interior pillars of the house, were found sunk into the L III floor. This period L III dwelling stood on a horizontal terrace (in our section between squares 9-15) and was defined by walls on the northern and southern sides.

The southern wall was 70 cm wide. It was destroyed at the same time as the deposition of the L II clay, which passes over on the superior face of the dismantled wall. There is only 1-2 cm clay, of an exceptional hardness. The northern wall of the L II dwelling is not only the limit of the house but is also the limit of the terrace in the squares 15-19. This wall was also destroyed during the levelling and construction of the next period L III.

We therefore have 3 levels in this area. Level III is represented by a house that was destroyed by fire. After this follows a reconstruction shown by the levelling and laying of a new, thick clay floor.

C. Squares 8 and 9. Under the topsoil there is a thick layer of debris, containing many large stones lying of a fairly flat level of rough yellow clay

(L II). It seems that during the time when this clay floor was in use at least part of the fort wall as well as the stone and earth wall in square 9 remained in use. Under L I, there is a layer of clay of thickness varying between 10 and 30 cm with a few stones and sherds. Then follows another level of rough clay, but sloping (L I2). As is clearly seen in the section, the stone and earth wall was erected on L I2 just penetrating into the earlier layers. The wall belonged to a small dwelling with a clay floor that shows how periods of use L I2 and L I1, with successive clay floors, features that are not present outside the small northern wall. Near the fort wall the two levels are also marked by a thin layer of ashes and charcoal.

Under these two first layers there is a layer approximately 45 cm thick of greyish-yellow clay that forms the L I ground surface.

The next level passes over the wall of the burned dwelling and continues above the yellow clay that covers the dwelling, and therefore represents level L II. It is on this relationship that we based the interpretation of the higher levels in this area.

Beneath this L II level there is a dark-brown layer and the sterile yellow natural earth into which the wall of the burned building penetrates.

As can be seen in the section (Plate XXX), we very probably have here a free space by the defensive walls which lasted from the end of the third and the beginning of the fourth century up to the second half of the sixth century (L II). This would explain the absence of the remains of dwellings near the wall as well as the extreme hardness of the surface of the via sagularia.

We have lamps as well as coins to date these levels. A series of coins extending from Justin II-Sofia (573-75) to Maurice Tiberius (599-600) has been found on level L II, which thus dates from the period of reconstruction following the destruction which occurred at the end of the reign of Justinian. This period of reconstruction was also encountered on the southern part of the fort wall dating from the second half of the sixth century, and if the latest coin, one of Maurice Tiberius (599-600), is taken into account, then the violent end of level L II must be related to the unrest around the years 602-603, and not to the events in 586-587. Therefore L I, the last period of occupation at Sacidava, can no longer be placed after 587, but must be dated after 602-603 and up to about 614.

In square 12, the large L III dwelling, which had been burned, produced a coin of Justinian (540-541) which confirms the dating of this level to the sixth century.

Three coins were found on L V in the hut-dwelling (squares 16-18) struck between 330-337, 335-341, and 365-375 respectively. They date this house to the fourth century. At any rate the dwelling was built after the level of yellow clay in square 15, corresponding to L IV (VII) in squares 10-11; this is confirmed by the pottery. It therefore follows that L IV (VII) (squares 16-18) dates from the fifth century, since that above it there is L III, dating from the beginning and middle of the sixth century.

As regards the sixth century levels, L III dates from the first half of the sixth century, and certainly from Justinianic times, while L II dated from the

second half of the sixth century, up to the years 600-602, consequently L I extended from the beginning of the seventh century up to about 614. It is an important discovery that, besides the three urban occupation levels, there are two levels of good yellow clay flooring (L I2 and L I1) with thin layers of ashes and charcoal. These levels, which like L I are found from time to time in the rest of the section, certainly represent the last phase in the life of the fort of Sacidava. They must be dated to the seventh century A.D.

Area II

The second area, 36 m long and 2 m wide ran perpendicularly to the western side of the fort. It was divided into 18 squares. Here too the three sixth-century levels L I, L II and L III were found.

In L III, in squares 11 and 12, there appeared a wall of stones bonded with earth, approximately 3 m long and 30-40 cm wide, of semicircular shape and facing the east. The wall was built on L III, was in use in this period, and was destroyed and replaced by level L II.

Squares 12-16. In this area of sector II, the fourth level is represented by a thick layer of yellow clay forming a floor which, in square 14, extends across a layer of compact mortar. L IV is also marked by a pavement of large stone slabs, covered in turn with a thin layer of clean yellow clay. The layer of compact mortar that disappears under the pavement, a layer that marks a period of construction, and the layer of fire-reddening under the lens of clay, are situated on the fifth level. Then there follows a layer of occupation deposits or made ground, and another layer of compact mortar that forms a new level, L VI. Under a thick grey-black layer in L VII, steeply sloping and marked by fallen tiles, stones, potsherds, burning and brick paving. The previous layer also extends in a slope (L VIII) that visibly rises as it nears the precinct wall. There follows a grey layer (L IX) the level of which is nearly the same as that of the preceding one (L VIII), L IX near the fort wall represents the first occupation level. Near the fort wall level IX was covered with a layer of fire-reddened material. The last level, LX, is dark yellow with grey flecks, and is also encountered in squares 13-15. The plan and section of levels (VIII, IX and X) and of the 'sterile' yellow earth (which does actually contain some impurities), indicate an essential and characteristic element of the early Roman fort. The earth rampart that surrounded the Roman fort while it was under construction and which was later replaced by the defensive walls, is called an agger. This agger was also discovered in A II, which enables us to reconstruct the western side of the early Roman Sacidava. The dating indicated by the pottery is confirmed by the coins. Level L II produced two coins of Justin II-Sofia, one struck in 573-574 and the other in 574-575. Levels III, IV and V in sector II did not contain any coins. They were dated by the pottery and by reference to other layers with coins or by comparison with Sector I. L VI produced a stratified coin of Constantius II, minted at Sirmium between 351-354. L VII produced two well-stratified coins of Constantine I.

Taken in conjunction with the pottery, the coins date level VI to the second half of the fourth century, and level VII to the first half and towards the middle of the fourth century. This leads to the conclusion, important for the

stratigraphy of the fort on the limes, that levels IV and V are to be placed between the second half of the fourth century and the beginning of the sixth century, that is LIV and V belong in the fifth century.

LVIII was clearly dated by a coin of the mint of Heraclea of 296-298, that is the reign of Diocletian. Therefore level LVIII in section II can be dated to the end of the third and the beginning of the fourth century. Level LIX contained a coin of 211-217, so it may date from the third century, though the previous level, LX, can be dated to the second century.

There is evidence of major conflagrations in level LIII, probably in the middle of the sixth century, and in level LVI (the end of the fourth century). The burning was more intense in the area of the fort walls. In squares 8-10, intense burning was noted in the fourth and especially the fifth levels, that is in about the middle of the fifth century.

It should be noted that the middle levels, LIV-LVI are much thinner than the others, and contain much evidence of rebuilding and reconstruction.

Area III Pl. XXXI.

Area III was laid out parallel to area II and perpendicular to the western side of the fort, with the aim of crossing the precinct wall.

Generally speaking, the stratigraphy in this area resembles that in the other two areas discussed above, but there are differences in the lower and middle layers.

Level LIII seems to have been represented in the area near the western wall of the citadel, by a scraping and levelling of the surface, thus removing the lower and earlier layers (LIV, V, VI and VII), levels that rose steeply to the west as they approached the wall of the fort.

LIV consisted of a floor of yellow clay, with intense burning, and it is dated to the first half of the fifth century (a coin dated to 423-425 was found in the burned level). It should be noted that between levels LIV and LIII (sixth century) there are two more levels with obvious traces of fire above yellow-grey clay. These two levels, LIVa and LIVb, can therefore be dated to the second half of the fifth century.

Level V is a level of dirty yellow-grey clay, on which there is a thin deposit of red burned clay mixed with charcoal and ashes.

Level VI is marked by a clearly-defined deposit of compact mortar. Under the greyish layer, interrupted in the slope towards the precinct wall, a new level appears (VII), marked by a deposit of compact mortar, ashes and charcoal. On this level LVII a coin of Claudius II was found (268-270), which would date LVII in area III to the second half of the third century, after the violent fire (LVIII) in the middle of the third century and before the time of Diocletian, where this level too was burned and destroyed.

The dirty yellow clay of the sloping level VII floor, covers a layer of intensely fire-reddened earth mixed with tiles, bricks, stones and charcoal and, at the bottom, pottery. The burned layer is very thick near the wall for a distance of approximately 4 m. It then becomes thinner and continues as a layer of yellow-brown earth, with patches of red and grey, that is almost

horizontal at the eastern end of the excavation. In the area near the wall several successive deposits can be seen in this burned layer. At the base is a thick burned layer with tiles, many bricks, ashes and charcoal, over which there are three other successive stages of destruction.

Level VIII, on which the burned building collapsed, is a nearly horizontal dirty greenish-yellow clay floor. In some places it runs up to the internal socle of the defensive wall or passes over it.

At the eastern end of area III, at a depth of 2.85 m, there appeared a solid wall, 0.80 m thick, built of stones bonded with mortar. It was the corner of some building which was certainly in use in the previous levels, LVII and VIII, that date from the second and third centuries.

Area IV (B)

This was an area running perpendicularly to the southern fort wall. Inside the wall only one level of seventh century date was found, that is a level later than those of the sixth to seventh centuries. There were no signs of fire. Levels LI, II and III were represented by very hard floors, intensely burned and covered in thick layers of ashes and charcoal. LIII is extremely hard.

Area V

This also runs perpendicularly up to the southern fort wall.

Level LI here shows structural features similar to those found in the other areas, and two other levels immediately over it, LI2 and LI1 (from the bottom upwards). Only level LI of these shows signs of burning. Level I2 was also contained by a wall without foundations, that was removed when the following level (IV) was established. Level I is paved with rectangular bricks over an area of approximately 5 sq. m. This being the floor of a house, surrounded on two sides by walls of stone and earth with no foundations. Only two courses of stones are preserved from these walls.

Area VII (Domus I)

This area is situated in the southeastern corner of the fort.

In area VII, level V was reached over a narrow area. The levels are marked by clay floors, structures and paving, burned layers, and ashes. The fifth level also contained a hoard of 15 coins, dated as follows: two from 341-346; four from 348-361; eight of Valens, 364-375; and the latest a coin of Gratian, dating from 383. This leads to the somewhat surprising conclusion that level V dates from the second half of the fourth century, a phase that ended violently with destruction by fire, but that contrary to our earlier supposition, this did not take place at the end of Valens' reign, with the Gothic invasions that culminated in the disastrous defeat at Adrianople in 378, but later on towards the end of the century under Theodosius I, probably between 383 and 392.

Another important result of this find is the dating of the following level (IV) to the fifth century.

In Area VIII, on the western side of the fort, the upper layers have been destroyed by modern excavations.

The first surviving level, level III, shows traces of an intense fire, with fallen walls above clay floors in which some large jars were embedded. In one of these was a coin of Justinian, dating level III to the first half of the sixth century.

Level V consisted of thick deposits, walls and general signs of fire. The coins were of Constantius II (two coins, 351-361) and Gratian (378-383).

Level VI was represented by a thick deposit above a very thick floor of clean yellow clay, especially tipped here to level up the site. Above this there was a paving of limestone slabs. This level bears obvious traces of burning and is dated to the end of the third and the beginning of the fourth century by the coins found in the earth and ash layer above it: a coin of the Tetrarchy (296-298) and a coin of Constantine I (313).

The same level also produced in well-stratified contexts two earrings and a comb, all typically fourth century.

Level VII, the deepest level that was excavated, consists of a pavement of stone slabs and shows traces of burning. Two coins of Aurelian (270-276), in conjunction with the coins of 296-98 from the succeeding level (level VI), indicate a date in the second half of the third century for layer VII.

In square F, on the southern fort wall, the stratigraphy confirms that established in the other areas with some variations.

The latest levels, I1 and I2, present the same picture as in the other areas. On level I2, a wall adjoining the fort wall indicates the rebuilding of an older wall dating from level I, and therefore the rebuilding of an old house. In level I2 this wall adjoined a paved floor of bricks and pieces of tile. On this floor we found a typical seventh century buckle.

Level I is marked by a wall with shallow foundations (18 cm deep) and by two other walls without foundations. An intense fire destroyed this occupation level, leaving many remnants of burnt beams. Also there is a great quantity of unfired brick. The dating of this level is established by a discovery of exceptional importance, a coin of the Emperor Heraclius, struck in the year 613. This discovery confirms our earlier suggestions based on the excavations of 1969-1970 in area I, 121

Level II contains portions of brick pavement, gravel or floors of clean yellow clay. The well-stratified coins are of Justin II (586-87, 594-95 and 596-97), which dates level II to the second half of the sixth century.

Level III is represented by a thick floor (0.20 m) of well-beaten yellow clay, and by a pavement of tiles and bricks. Of a great importance are two fragments of brick, discovered in the burned layer near the fort wall and bearing the stamp of the Emperor Anastasius I, thus confirming our earlier hypothesis of a period of construction in the reign of Anastasius. Besides these bricks, this level produced coins of Justinian of 541-42 and 542-43. This period of Sacidava's history, in the reigns of Anastasius, Justin I and Justinian, was interrupted by a fire and destruction.

Level IV actually comprises two levels (IV1 and IV2), distinguished by thin and discontinuous floors of yellow clay covered with a layer of burned material. Layer IV2 contained, in the ashes, a coin of Arcadius (395-408) and one of Theodosius II (408-450), but unhappily we cannot be more specific about the dates at which they were struck. At any rate, level IV2 certainly dates from between the end of the fourth and the middle of the fifth century. The next level, IV, covers the period from Theodosius II to Anastasius.

Under the sixth level we found sterile earth in which a pit had been dug from level VI, with many coins, one of Constantine I, and an 'onion-head' fibula was also of fourth century date.

THE STRATIGRAPHY

The correlation of the observations from all areas produces the following general scheme for Sacidava:

- I1 between 614/5-640 ?
- I2 Heraclius, to 614.
- I Justin II to Maurice Tiberius (602)
- III Anastasius and Justinian, to the invasions of 550-562 (destruction by fire)
- IV1 from Theodosius II to Anastasius (broadly speaking, the second half of the fifth century)
- IV2 Arcadius-Theodosius II (broadly the first half of the fifth century to 450)
- V Constantius II and Gratian (fire in 385/386)
- VI the end of the third century and the beginning of the fourth century (partial destruction by fire between 315-332)
- VII between 268-295 (fire)
- VII the third century, fire between 251-267
- IX the second century (no fires, localised rebuilding).

Correlation of the stratigraphy with that of other sites

The levels at Sacidava correspond to those on other sites, though sometimes there are discrepancies of a few years:

- I2 Histria, Tropaeum
- I Histria, Argamum, Tropaeum, Ulmetum.
- II Dinogetia, Histria, Tropaeum (fire in 587), Argamum, Beroe, Ulmetum, Iatrus, Sucidava.
- III Dinogetia, Histria, Argamum, Tropaeum, (also II to 587), Ulmetum, Sucidava (comprises II also), Iatrus, (to 530-536).
- IV1 Histria, Tomis, Sucidava, Iatrus.
- IV2 Dinogetia, Histria, Tomis, Argamum, Sucidava (408 or 447 ?), Iatrus (423), Capidava (?), Tropaeum (?), Hisar.
- V Dinogetia, Histria, Tomis, Argamum (378), Tropaeum (378), Capidava (378), Sucidava, Iatrus, Hisar.
- VI Dinogetia (comprises V also), Histria (comprises V also ?), Tomis, Argamum, Tropaeum (V also), Sucidava, Iatrus.

- VII Histria, Tomis, Tropaeum, Sucidava, Iatrus (?)
- VIII Dinogetia, Histria, Tomis, Argamum.
- IX Dinogetia, Histria (fire, 170), Tomis, Argamum, Tropaeum.

Brief Historical Scheme

The earliest occupation levels at Sacidava are those of the second century. Occupation was continuous down to the seventh century, with periods of destruction and repeated rebuildings, some of them general for the whole fort and others applying only to certain regions of it.

The construction of the Roman fort at Sacidava in the second century seems to be in complete agreement with the situation in Dobruja at that time. The second century, and especially the reign of Trajan, is unanimously considered to have been the time when the Dobrujan limes were constructed, by rebuilding and by founding new forts on the right bank of the lower Danube.

Extensive fire and disastrous destruction is noted in level III, in the third century. The southern side of the fort shows no traces of this event, which leads us to conclude that the destruction did not affect the whole fort but only certain regions, and that the western precinct wall was hardly tested by attack. As a hypothesis, we may associate this destruction with the invasion of Roman Dobruja in the third quarter of the third century by the Goths allied with the Carpi (free Dacians tribes of Moldavia). These attacks left their marks in both civilian settlements and forts, and are recorded in the literary and epigraphic sources.

We are inclined to date the destruction of Sacidava (fire, level VIII) to the middle or to the third quarter of the third century (251-267), because rebuilding takes place in level VII, after 268, as is shown by the coins (Claudius II in area III and two coins of Aurelian 270/271 in area VIII).

Level VII represents the period of rebuilding after the Gothic invasion (between 298 and at the earliest 271), taking into account the coins of 296-298 found in level VI. The new fire that affected the fort (the fire in level VII) must be dated to 294-295. This year seems to be proved both by the coins in levels VI and VII from areas III and VIII, square F and by the monetary circulation, which seems to have been interrupted between 270 and 296, and also by the fact that a general rebuilding and the enlargement of the fort under Diocletian could only have occurred after an extensive destruction of the fort. The sources and the archaeological evidence from other sites point to 295, when a new Gothic invasion took place.

After the invasion of 295, Sacidava was totally rebuilt along new lines, (level VII). The destruction of 295 seems to have been particularly grave, taking into account the modest character of the beginning of the rebuilding phase as reflected in the pit-dwelling in area I.

In the fourth century the early wall in square 3 in area III was demolished (layer IV). A rebuilding of the walls took place on the western side (area III).

We also note that at the beginning of the fourth century the standard of the occupation rose, previously unoccupied areas (area I) were built upon.

The observations made at Sacidava confirm the data for the fourth century for the whole of Dobruja and particularly for the Danubian limes. The general reorganization of the limes and of the province in the Diocletian-Constantine I period is well-known.

It may be mentioned that in Sacidava we note traces of localised burning in the middle and at the end of the fourth century too, but not as a general feature of the site.

The development which took place in the first half of the fourth century (Diocletian-Constantine I) was interrupted by a new fire (demonstrated in square F and area VIII), very probably due to a new Gothic, or at least barbarian, attack (315-316, or 323, or 331-332).

After this partial destruction, life resumed as is shown by level V, which comprises the period from Constantius II to Gratian, the coins of the latter emperor (383 in area IV and 378/383 in area VIII) proving that the conflagration took place after the reign of Gratian, perhaps under Theodosius I, when there were Gothic attacks in 384-385 and 385-386.

As we have mentioned above, the fifth century proves to be a time of repeated rebuildings, demonstrated by the fourth and fifth levels.

Nowhere in fifth-century Dobruja does the stratigraphy so clearly and convincingly reveal this as at Sacidava.

Two main levels are found in the fifth century: one period ran from Theodosius I to Theodosius II (402-450) (coins of Arcadius and Theodosius II in square F and area III), and a second period, with successive levelling off with clay and therefore rebuildings, and then layers of deposits and burning, which can generally be shown to date between the reigns of Theodosius II and Anastasius.

The fifth-century levels (IV and V) have in certain areas, especially level IV from area III, thick layers of burnt material and ashes, indications of a time of trouble at the end of the fifth century at Sacidava. At this time Dobruja suffered from the incursions of the Huns and also of Germanic tribes.

The picture of life in the fort is clear for the sixth century. It included three stages which applied to the whole area of the settlement, illustrated by levels I, II and III.

The beginning of the sixth century is characterized by efforts at reconstruction. The general revival reflected in the third level at Sacidava, shows in the rebuilding which took place on the limes, from the reign of Anastasius (491-518).

In the present state of our knowledge, we believe that the development reflected by the third level, as well as the rebuilding of the fort walls began at Sacidava in the reign of Anastasius and carried on up to the reign of Justinian.

The bricks with the stamp of Anastasius and the coins of Justinian fix the date of the third level.

This period ends violently with a destructive fire, the causes of which must be sought in the barbarian raids of 550-551, 559 and 562.

The second level at Sacidava is dated by coins which form a series extending from Justin II and Sofia to Maurice Tiberius (599/600). Thus the violent end of the second level must be related to the events of the years 600-602. The events from 586-587 did not cause visible damage at Sacidava.

Level I, the last general period at Sacidava, must be placed in the first half of the seventh century (the coin of Heraclius, 613).

Finally, we emphasise again the importance of the discovery at Sacidava of two levels (I1 and I2) and of some roughly circular stone structures and floors dating from the seventh century, which prove that life continued in the fort, but only in certain isolated areas. These, together with the entire range of archaeological materials found in the two sixth-century levels, prove the continuity of late Roman life and civilisation.

The fact that the last continuous and general level (level I) dates from the reign of Heraclius, as is shown by the coin of 613 from level I and by the coins of Maurice Tiberius (596/597 and 599/600) from the preceding level II, indicates that the late Roman occupation continued at a squalid and semi-rural level until about the middle of the seventh century, in conjunction with the partial cessation of the defensive function of the fort walls. The last levels show no traces of burning indicating a modest life but relatively peaceful occupation. The final abandonment of the fort took place peacefully as a part of the general end of the ancient world on the Lower Danube.

C. COMPARATIVE NOTES

HISTRIA

The excavations that have been carried out over many years and in different areas of Histria (Pl. XXXIV) have yielded a great deal of information on the Roman period, from which we have tried to extract the essential stratigraphic and chronological information for this comparative analysis. Unhappily not all the excavation reports and articles are of equal clarity or equally convincing; sometimes it is quite difficult to understand the exact situation, so that the present author has sometimes taken the liberty of making personal interpretations.

In the first volume of the Histria monographs three relatively major chronological periods¹²² were established:

- the first period, early Roman period up to the third century A.D.;
- the second period, the fourth to sixth centuries, with a first phase (fourth-fifth centuries) and a second phase (fifth-sixth centuries);
- the third period, the sixth-seventh centuries.

The same chronology applies in the great east-west section,¹²³ and in sector IV.¹²⁴

The stratigraphy in the southwest area appears to be more precise. Between the fourth and the sixth centuries there were three main phases: I, the fourth to the end of the fifth century; II, the sixth century up to c. 580; III, the late sixth and seventh centuries. The finding of two huts which post-dated the third phase was a discovery of importance.¹²⁵

At Histria, in the sector of the Hellenistic wall situated near the third earth rampart, a section lead to the conclusion that there were three occupation layers with five levels, all belonging to the Roman period (first to sixth century).¹²⁶ The first layer, with two occupation levels, was dated to the period between the first and the third centuries. The second layer, with only one level, was dated to the period from the second half of the third century to the end of the fourth century. The third and last layer with two occupation levels dated from fifth and sixth centuries.

The second layer, dated between the second half of the third century and the end of the fourth century was said to consist of only one phase. In the present writer's opinion, however, the report of the survey carried out in the 1953 excavations indicates the existence of two phases. The first consists of dwellings which can be dated to the second half of the third century and the beginning of the fourth century; the coin series extends from Gallienus to Constantine I. The group of graves, as is clear, represent another phase later than the occupation level. This phase is dated by a coin of Valentinian from one of the graves to the second half of the fourth century. Even the section clearly points to at least two levels in the second occupation layer.

The third layer has two occupation levels, the later one being dated by coins of Justin II and Sophia. Thus would correspond to L. II at Sacidava, or L. III in the central sector at Histria.

As to the stratigraphy of the late Roman period, the excavation of the buildings offers some evidence. In 1954 these authors reached the general conclusion that the buildings were to be dated between the end of the fifth and the end of the sixth century. The same general conclusion also maintained later.¹²⁷ At points D.5 and D.6 a first phase of the buildings with thermae is still dated to the first half of the sixth century, since a coin of the second half of the same century was discovered in the debris of the thermae.¹²⁸ Therefore at least two phases are identified in the sixth century. Furthermore, in the same sector it was noticed that after the destruction at the end of the sixth century or the beginning of the seventh, life starts again on a modest scale.¹²⁹ This conclusion is very important both stratigraphically, since we can identify three levels in the last period, and for the final phase in the occupation of Histria. Furthermore, it is in agreement with the observations made in the temple area, in the 'industrial' area and especially in the central sector, as well as Sacidava.

The discovery of two slight stone structures, approximately circular in shape ("rotundas"), in the first level is especially interesting. These unusual structures had roughly circular walls made of stone and earth, and were erected on the debris of earlier buildings.¹³⁰

In the main gate area, a level with two phases was noted. The first phase dated from the fourth century to the middle of the fifth century, and the later phase was dated to the fifth and sixth centuries and was characterised as a period of construction.¹³¹

Further excavations uncovered some rooms dated between 480-580, the period that has three phases. A final level was also found, dated after 602, and characterised by poor buildings.¹³² Therefore between the end of the fifth century and the first half of the seventh century Histria displays four occupation levels in the area of the main gate, which clearly resembles the stratigraphy of the central area at Sacidava.

The temple area. Especially interesting is the discovery of a hut with a clay floor measuring 4 x 4 m, which post-dates the last sixth-century level (Maurice Tiberius), and which belongs to the discontinuous level which dates from the beginning of the seventh century.¹³³ The stratigraphy of the area has been most convincingly reinterpreted, but only up to the fourth century, by Al. Suceveanu.¹³⁴

In collating this data we are compelled to re-evaluate the interpretation of the stratigraphy of sector T, section V, as follows (Pl. XXXV, 1): the dark brown level with Hellenistic-Roman pottery dates from the first century A.D.; the light brown level with early pottery is dated to the second century A.D.; the succeeding level dates from the end of the second century and the first half of the third century A.D., up to the great Gothic invasions; after this the street was built with its first level of green schist, a phase that lasts up to the fourth century when a new restoration takes place with an oyster shell level. Another level then follows (where the excavations stopped in

1954) which can be dated to the end of the fourth and the beginning of the fifth century. From this level up to the topsoil there follow three more levels, the last of which is dated by coins of Maurice Tiberius.¹³⁵ This means, in our opinion: a level dating from the fifth century, a level dating from the first half of the sixth century and a level dating from the end of the sixth and the beginning of the seventh centuries.

At Histria the excavations in the ER sector (the heated building)¹³⁶ and those in the central sector (in which we personally participated),¹³⁷ in which a special attention was given to stratigraphical problems, resulted in important and precise results for the second to fourth centuries in the ER sector and for the fourth to sixth centuries in the central sector. When combined, the data from the two sectors offers a general stratigraphic picture of Roman Histria, which can eventually be checked in the other areas too.

In the ER sector, the extramural heated building, the stratigraphy is as follows (Pl. XXXV, 2):

- IV: The earliest level (L. IV), in which the building was erected, dates from the second century. A coin of Hadrian (133-138) gives a terminus post quem for the construction of the thermae and a coin of 139-161 attests their still being in use in Antonine times. They were destroyed in 170.
- III: The next level (L. III) is dated by coins of 178-182 to 244. It ended with intense burning and the building went out of use.
- II: The next level dated from the third century, and contained coins of 260-268 to 270-275. Destruction probably took place in 295.
- I: The latest level: restoration in Diocletianic times. This lasts to approximately the middle of the fourth century, the latest coin being dated to 337-340.

For late Roman period (the fourth to seventh centuries), interesting results were obtained in the central sector of Histria, in the excavations carried out in the years 1969-1971. (Pl. XXXVI-XXXVIII).

The first level, L. I, is situated immediately under the topsoil and is represented either by a levelling of the debris of the preceding level, L. II, or by its own debris. The important problem is the sporadic character of the last level, and therefore of Histria's character in the final period of its occupation.

We can therefore assert that the floors were no longer of the same standard as those of the previous levels, being merely rammed earth, and with regard to the dwellings it is obvious that most were earlier ones re-used. We call attention to the fact that this dating only refers to the time at which the buildings were erected, and does not take into account the levels that were added later, that is to say it ignores the length of time for which the structures survived.

In two places there were noted what appeared to be the remains of circular buildings of the kind known at Histria, belonging to the latest level. The buildings appeared in section A, squares 38-40, and in section B, squares 25-26. Within them were plain clay floors, which indicates that they were dwellings.

In view of the sporadic character of the occupation, the quality of the floors and the apparent ignorance of the original street plan, we can conclude that the dwellings of this period reflect the final stage of urban decay at Histria. We cannot determine to what degree the final abandonment was due to attacks, no traces of burning having yet been observed. The dating of this level is still uncertain. All that can be said is that the first level (L. I) as well as the second (L. II) post-date the year 592/593, the date of the latest coin in L. III. It is certain only that the occupation of Histria continued into the seventh century.

The second level (L. II) shows resemblances to the first one in several respects. As can be seen from the sections, it is found over almost all the area. This level also makes use of most of the previously mentioned walls. In most cases the floors are merely of rammed earth.

Clay floors appear in section A, squares 7-8, 22-27 and 36-37 in the northern section, and in the southern one in squares 19-20, 27-34 and 41-44, though it still cannot be determined precisely what buildings were erected. At this time, it is clear that the re-use of the earlier walls does not necessarily imply that they retained their original functions.

The dating of this level, for which the pottery, consisting entirely of Romano-Byzantine types, is of no use, is indicated by the latest coin in the preceding level L. III, namely 592/593. This establishes its existence in the first decades of the seventh century. As to the end of this period of occupation, there was no violent destruction, judging from the lack of burning. In the third level the aspect of a town is fully recognisable. We are not dealing with a renewal of Histrian urban life, but with a continuation of the activity of period L. IV. As to the street plan, several private houses merely continue their existence with the insertion of new floors, and in other cases by adding new walls. The coins indicate that this level began in the second half of the sixth century, certainly by 565/566, if not by 561/562, and continued to post-592/593, that is up to the extreme end of the same century or just afterwards. This period was suddenly terminated by a fire.

Level L. IV was directly connected with this level, of which it was a direct continuation. The fourth level therefore has a particular importance as it represents a crucial period in the life of the fortress. No building of the immediately preceding level (L. V) continued in use in period L. IV. In the western part of the town, where the centre of the town had lain in the early Roman period, there appear a series of private buildings with walls of shale bonded with earth with an appearance and orientation that indicate that they represent a new period and topography and urbanisation of the fortress. On the other hand, a series of great public buildings point to a shift eastwards of the town centre. The fourth level is therefore characterised by extensive stone construction and a renewal of urban life. The date can be fixed between the beginning of the sixth century, or more precisely 527, and the middle of that century, the latest coin being dated to 543-544. In any case, the beginning of the fourth level must date from the end of the fifth century, that is to say from the reign of Anastasius, bearing in mind that the work of restoration and reconstruction by this emperor in Histria is also attested by bricks stamped with his name, by an inscription, and by coins from the main gate area. The

rarity of coins of this emperor should not surprise us, this being a general feature in the Danubian provinces and one explained plausibly enough by the numismatists. The level was violently destroyed, signs of burning being identified throughout the whole excavations.

The fifth level was found over the entire area excavated. Some buildings of a very inferior quality were identified and some clay levels, generally rather uneven, all attesting a low level of culture. It must be emphasised that despite the primitive standards of constructions in this level, clay floors were encountered almost all over the area, indicating organisation and presumably the preservation of a planned character of the fortress in this less prosperous period. Up to now we have not found any coins to date this level. Since it cannot be later than the beginning of the sixth century or earlier than the second half of the fifth century (as shown by the latest coins in L. VI), we place it in the second half of the fifth century. This level is firmly identified for the first time at Histria.

The aspect of the fort appears little changed in the period represented by the sixth level. The same poor buildings were identified over the whole area of the excavation. The five coins that were found in this layer point to a period that extends from the fourth quarter of the fourth century to the middle of the fifth century (more precisely between 383/395 and 420/450), a period scarcely known up to now at Histria.

Finally, the deepest level (L. VII) is firmly dated to the first half of the fourth century. It is certain that, unlike the levels above it, this one represents a period of prosperity and construction.

We consider the table below as the most reliable sequence for the general stratigraphy of Roman Histria, and we use it as a standard for comparison with Sacidava:

- L. I (VI. 4), the seventh century; slighter deposits; roughly circular buildings are to be noted, resembling those at Sacidava. No traces of burning.
- L. II (VI. 3), the beginning of the seventh century; no burning.
- L. III (VI. 2), between 565/566 and 592/593; destroyed by fire.
- L. IV (VI. 1), the Anastasius-Justinian period; a period of great construction; ended by burning (the latest coin dating from 543/544).
- L. V, the second half of the fifth century; rather poor standard of life; destroyed by fire.
- L. VI, between 393 and 450.
- L. VII, the end of the third century and the first half of the fourth century; buildings of inferior construction (coin dating from 295-324).
- L. VIII, the second half of the third century; destroyed by fire in 295.
- L. IX, the end of the second and the first half of the third century; ended by a fire (the Gothic-Carpic invasions between 248 and 267).
- L. X, the second century; ended by a fire (the invasion of the Costoboci in 170).

This brief description of the stratigraphy and chronology of Histria shows on the one hand the contradictory and confusing character of the deposits in certain areas, and on the other the gradual clarification of these problems. Em. Condurachi in 1954 noted that there were two phases in the second level representing (a) the deposits from the beginning of the fourth to the middle of the fifth centuries, and (b) deposits dating from the second half of the fifth to the middle of the sixth century.¹³⁸ This is now confirmed and is precisely illustrated in the central sector by L. VII and L. VI (= phase (a)), and L. V and L. IV (= phase (b)). Level I, with three phases, the latest after 610,¹³⁹ also represent a remarkable suggestion, brilliantly confirmed by the subsequent excavations in the central sector (L. III, L. II and L. I). We also recognise the achievement of A. Petre,¹⁴⁰ who correlated the datable analysis of site stratigraphy with major historical events (A.D. 491 - Anastasius; the destructions of 587, and 602 and 641), and who also first demonstrated continuity of occupation down to the first half of the seventh century at Histria and Dobruja, later fully confirmed by the excavations in the central part of Histria and especially at Sacidava.

IATRUS

The fort at Iatrus was built on a plateau at the point where the river Iatrus flows into the Danube. Its walls follow a very irregular course, forming a good example of the adaptation of the late Roman fort plans to the ground configuration.¹⁴¹ (Pl. XXXIX).

The north and west sides have collapsed. The first southwestern section runs straight for approximately 60 m and then turns westwards, with a round tower at the corner, and continues in a straight line for 150 m, after which it turns again, with a horseshoe-shaped tower at the corner, towards the north. After about 35 m it reaches the gateway then three more sections of approximately 70 m each lead up to the northeastern corner, where there is another horseshoe-shaped tower. At this corner the southeastern side meets the northeastern one at a right angle, the latter still surviving for a length of about 50 m up to a gully.

The northeast and southwest walls, insofar as they have survived, have no towers. On the other sides the towers are placed approximately equidistantly at about 15 m intervals. At the northwest, southeast and southwest corners there are round towers. In the middle of the southern side, the longest one, there is a large rectangular tower, with a 30 m wide front and the sides 9 m long. The gateway is ingeniously placed in the southeastern side, in the recess formed by two bent walls. It consists of an opening 2.50 m wide protected on the interior of the fort by a small tower. The large gateway, with no towers, is accounted for by its excellent position, well protected by the towers on the walls on either side, one at a distance of 13 m and the other at 20 m, which project well beyond the line of the entrance.

The topographical analogy with Tropaeum Traiani (many small U-shaped towers and a large rectangular tower on the front side), led to Iatrus being dated, at the beginning of the excavations, to the reigns of Constantine I and his successors.¹⁴²

The tower system at Iatrus generally reflects the situation at the time.¹⁴³ Beginning with the third period (C) of the history of Iatrus (fifth century A.D.), the structures are characterised by poverty and decay. The old monumental buildings were replaced by one-roomed dwellings, with walls of stones, bricks and tiles bonded with clay. Above 1-1.50 m from ground level, the walls were made of unfired brick and sometimes even of wood. In the first half of the sixth century, besides a majority of very modest dwellings, there were also some monumental buildings in use.

The fort or stronghold of Iatrus has its beginnings in the Diocletian-Constantine period. Although the Peutinger Table mentions this fort,¹⁴⁴ the excavations have not revealed evidence of structures dating from before the 4th century, but have only produced slight indications of occupation in the 2nd-3rd centuries.¹⁴⁵

Earlier excavation reports established two major periods represented by four levels in the late Roman era.¹⁴⁶ Period A comprises the time from the founding of the fort to the end of the 4th century (Theodosius I, 379-395). Period B spans the 5th and 6th centuries, with an interruption in the occupation in the 5th century. This interruption is also proved by the coin series.¹⁴⁷ There is an uninterrupted series from the 4th century to the first quarter of the 5th century, then an interruption followed by another continuous series from the end of the 5th century to the end of the 6th. It is also revealed by a massive stratum of burning and debris.¹⁴⁸

The earliest level, level VI, is not very precisely dated, but derives from about the end of the 3rd and the beginning of the 4th century, not being connected with the structures. Level V, 0.50 m thick, dates from the first half of the 4th century, to about 324. Level IV, 0.50 m thick, is dated up to the year 420. This level has two phases, that is to say it comprises two sub-levels, the first connected with the construction of the walls in the reigns of Constantine and Valens, the second connected with the erection of a basilica (basilica I) in the southwestern part of the fortress. Level III, 0.70 m thick, lies above a level of burning and has been dated to the period from the end of the 5th century to about 530. During the excavations the existence of two phases has been clearly seen in this level, IIIA and IIIB. Level II, 0.60 m thick is dated between 536 and the end of the 6th century, when the erection of the second basilica took place, above the ruins of the first one. Level I is early medieval. The final level, I, has destroyed and modified the stratigraphy of the late Roman levels dating from the end of the 6th century, indeed only two sixth century levels have been found at Iatrus. The depth of level II (0.60 m) leads us to believe, taken with the disturbance caused by the early medieval huts, in the existence of several phases in this level II, comparable to those at Sacidava, Ulmetum, Tropaeum, Histria and other sites. According to this stratigraphy, the late Roman occupation of Iatrus included, with an interruption in the middle of the 5th century, the following occupation levels: L. V-first half of the 4th century; L. IV B-end of the 4th century; L. IV A-the first half of the 5th century; L. III B, the second half of the 5th century; L. III A-the first half of the 6th century; L. II-the second half of the 6th century.

At Iatrus, the principal contradiction appears in stratum D, with levels III B, III A and II, level II B being placed in the second half of the 5th century. After 423 however, there are many signs of occupation.

both the inside and outside faces of 0.25 m depth.¹⁵⁵ Tower F is rectangular and measures 6.84 x 5.90 m. On the east side is a narrow opening, 1.05 m wide.¹⁵⁶ Tower G is also rectangular, but of larger dimensions (10.50 x 5 m). Tower H is also rectangular, and measures 7.75 x 6.25 m. On the southeastern side, a narrow gate, only 0.90 m wide, allows access to or from the fort.¹⁵⁷

In the second stage (Justinian) internal towers were erected behind the external towers, in order to double the defensive strength of the fort. For example, the tower B, interior rectangular (and also the external one, measuring 7.30 x 5.50 m). It is very curious that this internal tower is not connected to the precinct wall, its sides ending at a distance of 0.50 m from the steps leading into the tower and 2.30 m from the fort wall. The tower has an entrance on the internal side, so that these openings cannot be entrances. The interior tower C is trapezoidal, with its sides continuing the line of the external tower. The north side measures 3.10 m, the east 6.50 m, and the south 3.80 m.

We notice that only in the external sides with exits, have there been erected central partition walls, parallel to the precinct wall of the fort, in order to restrict and to hinder access by any enemy who might penetrate into these narrow gates.

Towers G and H do not have internal towers, but have an entirely different supplementary fortification system.¹⁵⁸ Thus, tower G is closed by a blocking wall, the usual internal tower being replaced here by a wall 1.35 m thick and 5.50 m long, with the ends butting onto the curtain-wall, forming a barrier pierced by a gate only 0.50 m wide. Behind tower H, at a distance of 1.75 m, a parallel wall was erected, equal in length to the tower wall (8.50 m), but 3.50 m thick.

We notice, therefore, the great inequality of the dimensions of the towers and their different systems of supplementary fortification, extra care being accorded to those with small exit gates. We must also remember that the two trapezoidal towers are not properly connected to the fort wall, representing later reconstruction of the initial stage of the fort construction, over older towers whose shape is not known.

The inside towers are built separately, without a connection with the fort wall, the masonry and even their shape indicating a late date; and it has been proved stratigraphically that the internal tower A was erected over a debris stratum dating from the 4th century. Further in front of them the traces of stone pillars have been discovered, which no longer had a role in the second stage. Behind the precincts-wall is a second wall 1.50 m thick, but this time bonded with clay. This second wall represents a late stage, but was built a little earlier than the internal towers, and certainly after their erection. This wall was designed to increase the area of the upper platform of the defensive wall.

In the 6th century extensive rebuilding took place especially at the east corner of the fort. A very strong wall was added from tower H to the east, 3-4.50 m thick and 35 m long. The external towers I and J, and the internal quadrilateral tower K were added later.

Tower 1 is polygonal in shape, measuring 4.40 m at the base and with four exterior faces (1.55 x 2.75 x 2.25 x 1.10 m). This tower is unusual, having however analogies, also in the 6th century, at Hajdučka Vodenica. Tower J is in fact a massive bastion-platform on the outside of the western corner of the fort (3.35 x 5.00 x 5.80 x 3.20 m). In the same area, but on the inside, a square tower was erected (K) measuring 6.40 x 7.90 x 5.0 m.

On the plateau on which lies the fort of Sucidava, Roman remains earlier than the erection of the fortification have been found, but they belong to the civilian occupation of the 2nd-3rd centuries, which also extended across the plateau.¹⁵⁹ The fortification was built during the reign of the Emperor Aurelian and some reconstruction took place during the reign of Constantine the Great.¹⁶⁰

After these periods of initial construction and development, in the 4th-6th centuries, Sucidava had suffered three big fires, the first two being dated in the first half of the 5th century and the third to the end of the 6th century. The first destruction of the fort took place in the first half of the 5th century (410 ?) and the second probably dates from the invasion of Attila (442-447). Even if the exact dates of these destructions are not known, it is certain that Sucidava was destroyed during the reign of Theodosius II (408-450), after which there is a break in occupation until the time of Justin I.¹⁶¹

Stratigraphic and numismatic evidence show that the fortress was reconstructed only in the Justin I-Justinian period, the general reconstruction of the Danubian limes being completed about 543.¹⁶² Sucidava was totally destroyed by fire between 598 and 600, during the reign of the Emperor Maurice Tiberius, when a number of Danubian fortresses and towns fell to the Avar-Slavs.¹⁶³

The stratigraphy in section C (1936), confirmed in other sections, was as follows.¹⁶⁴

- I. A stratum dating from the 4th century, about 0.60 m thick.
- II. An ash and charcoal stratum 0.10-0.20 m thick, proof of a violent conflagration, corresponding to the Hunnic invasion of 447.
- III. A 1 m thick stratum, with traces of rather poor occupation (hearths, wooden huts, primitive pottery) corresponding to a period of decline extending from the end of the 5th century to the beginning of the 6th.
- IV. A stratum 0.40 m thick, dating from the 6th century (Justinian to Maurice Tiberius).
- V. Stratum with intense burning, 0.10 m thick (the Avar-Slav invasion of the end of the 6th century).
- VI. Debris.

NOVAE

This was a strong fort on the Danube, with a long history extending from the 1st to the 7th century.¹⁶⁵

Two major stages are distinguishable in the plan of the fort: Novae I, a rectangular fort covering 20 ha., has the classical Roman fort plan. Novae II was a late extension of the fort with an area of about 10 ha., extending to the east.

Novae is rectangular with the long axis directed north-south, perpendicular to the Danube. The origins of this fortress are still not clear. There are traces of a wall 1.50 m thick, with rounded corners and rectangular internal towers.

After the Gothic invasion of 250, Novae I was reconstructed, adding another 1 m thick wall to the original north wall, with external rectangular towers.¹⁶⁶ Our opinion is that the external U-shaped towers were added later on, perhaps in the Constantinian period. In the first half of the 4th century the towers of the western gate were completely rebuilt. Above the remains of the external square towers there were built two large new rectangular towers (12 x 6 m), each with two rooms.

Three structural stages can be seen in the south gate. The first, with two square external towers (5 x 5 m), dates from the 3rd century. In the second stage, probably a rebuilding after the Gothic attack of 250, the outside walls of the towers were doubled. The third stage is represented by large U-shaped towers, incorporating also the remaining walls of the old towers. From the design and constructional technique, this third stage belongs to the first half of the 4th century.

We can assume that Novae II was also erected in the 4th century. Its walls with rectangular towers were probably destroyed in 376-378 in the Gothic invasion, after which a second wall was erected, joined to the first one. No new towers were built, the old towers being reused. After the Hunnish invasion of 447, the fort was rebuilt under Justinian.

Unfortunately we can find no precise dating or stratigraphy in the excavation reports or in general works on the site.

OESCUS

This fortified town is better known from a topographical point of view.¹⁶⁷ Initially Oescus I had an irregular pentagonal shape, occupying about 20 ha. Probably after the return of the Vth Legion *Macedonica* to Dacia in 271, the fort was extended by about 10 ha. towards the east (Oescus II). In fact, only this later wall is well defined. The north and east sides are straight, and in the southeastern corner the wall forms an obtuse angle. In the northeastern corner there is a round tower. The other towers have round fronts and flank the two gates on the north and east sides approximately equidistantly. Ten towers have been discovered to date on the northern and eastern sides.

In connection with the constructive stages from Oescus, a major Gothic destruction in 376-378 is precisely documented at the temple of Fortuna.

Quadriburgia

A special category of fortification is represented by quadriburgia, characterized by a square or rectangular plan, but small in size, with external towers at the corners (rarely along the sides), square shaped or extremely rarely round, without many intra-mural structures, with a single gate, and with walls less than 2 m thick and built generally in opus mixtum, with 4-5 brick courses.

These are specific to the outlying areas of the late Empire, and many of them have been excavated. It has been proved that we have here forts specific to the period of the Tetrarchy,¹⁶⁸ usually erected in places where formerly there were no fortifications, in order to fill the gaps. Their construction took place together with the rebuilding of the old forts. Quadriburgia are well represented on the Dacia Ripensis limes and in Moesia Superior, but are extremely rare on the Lower Danube. Examples are the fortifications at Traian, Mircea Voda and Nova Cerna.¹⁶⁹

Nova Cerna (Pl. XLIV/1)

This fort is situated on the Danube near Durostorum. At the end of the 3rd century a fort was erected here, rectangular in shape (90 x 85 m), with external quadrilateral towers.¹⁷⁰ Those at the corners have a rhomboidal shape formed by the corner of the fort wall.

Inside, there is another square fortification of smaller dimensions (burgus), with rhombic towers at the corners and a rectangular tower on the middle of the southern side. In fact, these rhombic towers with sharply angled fronts have some defensive advantage. It seems very strange that the authors have dated both fortifications to the same period, from the second half of the 3rd century to the first half of the 6th century.

Drobeta (Pl. XLI)

The Roman fortification of Drobeta has a special place among the other forts of the Middle and Lower Danube, both for its regular plan and for its internal architecture and town planning.

The first excavations were carried out by C. Bolliac, followed by G. Boissière in 1865, by Gr. Tocilescu and his collaborators in 1896-1899, and Al. Barcacila. The excavations carried out by Gr. Florescu yielded very important chronological evidence.¹⁷¹

Many stages have been established: notably stage III (end of 3rd century), stage IV (4th century) and stage V (end of 5th and the beginning of the 6th century).

The fortification has a rectangular plan, measuring 137.5 x 123 m, with the long axis directed north-south. The late fortification (stage III) was erected over the early fort and coincides with its plan. In stage III, larger external towers were built in front of the internal towers, and the fort walls were made thicker and higher. At the corners, the external towers have an unusual fan shape, with semi-circular fronts and oblique sides. The original north gate is replaced by a large external rectangular tower. Two more

small external towers were built on the north side and the side gates were maintained, but also passed through external rectangular towers. Two more small, external rectangular towers were added on the north side. The southern gate remains the principal one, flanked in this phase by two large, U-shaped external towers, added to the old internal towers.

In stages IV and V, the internal towers underwent some modifications, as yet unspecified.

Pillars were erected around the precinct walls, placed equidistantly, one row on the south side and three rows on the north side (the side most exposed to attack and the most heavily fortified one). These pillars supported a platform which extended around the walls.

The original plan of Dobreta (stages III-V) may be explained by the adaptation of the defensive principles of the late period (Aurelian, Diocletian-Constantine), to the elements of the old 'classical' fort.

The interior is symmetrically divided by two streets which intersect at right angles, with pillared porticoes. Along the streets are aligned 84 rooms, equal in size, each one with an entrance onto the street. The rest of the space remains free, probably to allow movement of the troops and cavalry.

As regards the town plan of Dobreta, some analogies may be found in the palace of Diocletian at Split, at Antioch, Palmyra, Luxor and at Iatrus, though exact parallels are not known.

Castra Martis (Pl. XLIII)

Situated in Dacia Ripensis, 32 km southwest of Bononia and on the Danube, the fortification of Castra Martis defended in depth an important centre of communication in this section of the limes.

The fort is built in two parts: a monumental quadriburgium and a castellum situated to the southwest, that occupies an area of 70 ha and was later built confronted by the quadriburgium.¹⁷² The quadriburgium has a square plan, with 40 m sides and with four round towers at the corners. The walls are 2.25 m thick. It was accessible only on the south side, where the entrance was placed. This was initially 3 m wide, with a portcullis, but was later reduced to 1.70 m as a double door. Later on, the south side was doubled by the addition of a wall uniting the two lateral towers, thus forming two big rooms for the guard.

The towers are round and external, and equal in dimensions (12.50 m in diameter). The southeast tower had three floors, built of wood.

The walls were constructed in opus mixtum, with three brick courses and stones measuring 0.95-1.15 m, carefully faced.

The castellum, impinged upon the west side by the quadriburgium, has an irregular shape, with 5 sides placed according to the ground configuration, with 5 round towers at the corners and also at the middle of the south and west sides, which are the longest sides. The walls are 3.0 m thick. The entrance gate has not yet been discovered, nor has the communicating gate between the two fortifications.

Saldum (Pl. XLIII)

Situated on the bank of the Danube, between Novae and Bosman, Saldum has a rectangular plan 43.50 x 31.20 m,¹⁷³ with towers at the corners.

The walls are faced with square stones, sometimes with brick courses. Two of the external towers, those at the northwest and southeast corners, are circular, 3.70-4.10 m in diameter. The northeast tower is entirely different. It is rectangular at the eastern end with a 12 m axis, ending in a semicircular apse. The tower at the southwest corner is horseshoe-shaped.

Bosman (Ad Scrofulas) (Pl. XLV, 2)

The ground conformation led to the erection of a fort, with an unusual plan, Bosman being the second known fort with a triangular plan. The three sides are almost equal in length (47 x 49 m). The east side follows the curve of the bank of the Danube. The walls are 2.20 m thick. At each corner there is a circular tower.¹⁷⁴

Bosman has been identified with Ad Scrofulas, and has been dated between the 3rd and the 6th centuries, without closer specification.

Boljetin

This fort was built in the 1st century and abandoned in the 2nd century. It was then restored following Aurelian's withdrawal from Dacia and the renewal of the Danubian frontier. However, the reconstruction was carried out on approximately the same line as that of the early walls. Occupation continued until about the 5th century, when the fort was destroyed and burned. A new reconstruction took place under Justinian.¹⁷⁵

The walls and the towers show clearly the constructional periods of the forts. The south side retained old early Roman walls with repairs and additions. The north side consisted of the new Aurelian walls, with some later modifications. Under Aurelian, the fort at Boljetin retained its south wall and parts of the east and the west walls from stage I (at least as regards the lower parts of the walls) rectangular internal towers being erected at the rounded corners, and therefore on the early Roman plan. The north wall and parts of the east and west walls were reconstructed from the foundations, with right-angled corners and with rectangular internal towers at the corners.

In the third stage (according to the authors, in the 6th century, under Justinian), exterior towers were erected on the walls, which were horseshoe-shaped at the square corners of the north wall and U-shaped at the rounded corners of the south wall, and on the middle of the two long sides an exterior rectangular tower was added, enclosing at the same time the two gates. A wall was built blocking up the gateway in the west wall. The entrance in the east wall still functioned as a single gate, fortified with an internal tower, with two entrances.

It is clear that the chronology of Boljetin has been established only approximately, even if the three major stages are correct. In any case, between the end of the 3rd century (reign of Aurelian) and the 5th century (the Hun invasion) more stages have been distinguished, at least for the

Diocletian-Constantine period, because we believe that during the reigns of these two Emperors modifications were made to the fort. Boljetin could not have been an exception to the restoration of the limes and could not have remained until the 5th century without external towers and without any kind of towers at its two gates. Also, in stage II (the end of the 3rd to the 5th centuries) the town plan of the fortress is disorganised; it cannot date from the 4th century, but much more probably dates from the end of the 6th century.

The plan in stage III (dated to the 6th century) with horseshoe-shaped towers at the corners and rectangular towers on the curtain walls and at the gate, has, like the plan of the interior, analogies in the Diocletian-Constantine period. This does not at all exclude the possibility that the fortress functioned, with the same plan (and reconstructions), under Justinian.

Hajdučka vodenica (Pl. XLIV/2)

Fortification belonging to the 4th-6th centuries with a rectangular plan, 70 x 50 m sides.

The southwest side, directed towards the land, is the strongest, equipped with two circular external towers at the corners and an external polygonal tower with four faces outside. Two more tower-bastions are situated at the west ends, towards the Danube, right on the bank, also circular but smaller.

The precinct walls, doubled on the north side, are 3.20 m thick. The big circular towers are 10 m in diameter. The east tower is equipped with three buttresses. The middle polygonal tower has a 7 m front and 7.50 m depth. The side towards the Danube is broken.

Although the authors suppose the erection of this fort to have taken place in the second half of the 4th century, the published plan belongs entirely to the 6th century.¹⁷⁶ If the fortress originally had a square shape, with external towers at the corners, at a later stage two parallel walls run from the two circular west towers, with ends on the Danube bank and circular bastions.¹⁷⁷ Also in the second stage, the southeast circular towers become thicker and have buttresses, and the pentagonal tower with a pointed front is added.

From a topographical point of view, the plan of this fortress is unusual in the addition of the sides towards the Danube bank, and in the combination of circular towers and the circular bastions.

CHAPTER II

REFERENCES AND NOTES

1. E. Desjardins, Voyage archéologique et géographique dans la région du Bas-Danube, Revue Archéologique, 17, 1868, p. 264; cf. I. Barnea, DID, 2, p. 426 and Materiale, 4, 1957, p. 155; I. Barnea, RÉSEE, 9, 3, 1971, pp. 349-350; Em. Popescu, Dacia, NS, 13, 1969, pp. 403-415.
2. P. Polonic, mss., 5132, f. 1000, archive Gr. Tocilescu, BARSR; idem, Natura, 7, 1935, p. 24; Al. S. Stefan, BMI, 42, 1, 1953, p. 5, fig. 2-3.
3. Materiale, 4, 1957, p. 156.
4. Al. S. Stefan, BMI, 42, 1, 1973, pp. 3-14.
5. SCIV, 5, 1-2, 1954, pp. 175-182; Materiale, 4, 1957, pp. 155-174; Materiale, 5, 1959, pp. 461-473; SCIV, 4, 1964, p. 562; I. Barnea, Dinogetia et Noviodunum, deux villes byzantines du Bas Danube, RÉSEE, 9, 3, 1971, pp. 349-350.
6. Ibid., p. 350; SCIV, 3, 1965, p. 598.
7. SCIV, 4, 1968, p. 688.
8. I. Barnea, Peuce, 6, 1977, pp. 105-106.
9. Materiale, 5, 1959, pp. 461-473.
10. Materiale, 4, 1957, p. 162.
11. There are, due to the lack of stratigraphic evidence, some contradictions and disagreements, especially for the 2nd-3rd centuries. Cf. Al. Suceveanu, Dacia, NS, 13, 1969, pp. 358-359 and Al. S. Stefan, op. cit., p. 4.
12. Al. S. Stefan, op. cit., pp. 4-14.
13. But with several exceptions: Tomis (C. Scorpan, RRH, 15, 1, 1976, pp. 5-10), and also Ibida, Oescus, Novae and Castra Martis.
14. Gh. Stefan, Dacia, 7-8, 1937-40, p. 401; I. Barnea, RÉSEE, 3, 1971, pp. 343-344; idem, Actes, p. 21.
15. I. Barnea, loc. cit. and SCIV, 1-2, 1953, pp. 258-269.
16. Dacia, 7-8, 1937-40, p. 401.
17. I. Barnea, Dinogetia, Meridiane, Buc., 1961, p. 16, fig. 4; idem, Dacia, 10, 1966, p. 238, fig. 1.
18. Dacia, 7-8, 1937-40, pp. 401-405.
19. SCIV, 3, 1952, pp. 409-410.
20. Ibid., pp. 392-394.

21. SCIV, 1-2, 1953, pp. 255-257; I. Barnea, RÉSEE, 3, 1971, p. 344.
22. I. Barnea, SCIV, 2, 1969, pp. 245-265; idem, RÉSEE, 3, 1971, pp. 344-346.
23. I. Barnea, Dacia, 10, 1966, pp. 237-239, 257-258.
24. SCIV, 1, 1951, p. 39.
25. SCIV, 1, 1951, p. 33.
26. SCIV, 3, 1952, pp. 392-394; I. Barnea, RÉSEE, 3, 1971, pp. 344, 346.
27. SCIV, 1-2, 1953, p. 257.
28. Ibid., p. 259.
29. SCIV, 1-2, 1954, pp. 162-164, fig. 3.
30. I. Barnea, L'incendie de la cité de Dinogetia au VI^e siècle, Dacia, NS, 10, 1966, pp. 237-259.
31. Ibid., pp. 238-239.
32. Ibid., pp. 239-240.
33. Ibid., p. 255.
34. Materiale, 6, 1959, p. 636. Plausibly there are three levels in the 6th century.
35. Materiale, 7, 1961, pp. 593-94.
36. Materiale, 7, 1961, p. 586; Materiale, 8, 1962, pp. 676-684.
37. I. Barnea, Dacia, 10, 1968, p. 257, and RÉSEE, 3, 1971, pp. 343-348.
38. Idem, Dacia, 10, p. 258.
39. L. Lenier, Revue Archéologique, 10, 1864, p. 391; G. Boissière, Archives des Missions Scientifique et Littéraires. Choix de rapports et instructions, II^e série, t. IV^e, 1867, pp. 181-221. E. Desjardins, Revue Archéologique, 17, 1868, pl. IX, X. Gr. Tocilescu, Monumente, p. 68, note 11.
40. G. Boissière, loc. cit.
41. Gr. Tocilescu, Monumente, Iglîța (Troesmis); V. Pârvan, Cetatea Ulmetum, I, p. 516, fig. 14; DID, 2, 1968, p. 517, fig. 23 and 24.
42. Gr. Tocilescu, RIAF, 1, 1882, pl. 10.
43. Archive Tocilescu-Polonic, at BARSR.
44. I do not believe that the precinct wall, 100 m long, has no towers at a fortress like Troesmis. In fact, on Baudry's reconstruction plan, a new rectangular tower appears.
45. In any case, both fortresses belong to a later period, beginning in the 4th century, as is shown by the earlier stones re-used in the precinct walls.

46. Al. S. Stefan, BMI, 40, 4, 1971, pp. 43-52. Idem, Actes, pp. 98-99.
47. Information from Al. Barnea; idem, SCIV, 2, 1975, p. 209, note 4.
48. A. Petre, Materiale, 8, 1971, p. 565.
49. Em. Condurachi, Studien, p. 172; D. Vilceanu, Al. Barnea, SCIV, 26, 2, 1975, p. 209.
50. V. Brătulescu, BCMI, 33, 1940, pp. 3-25; BCMI, 36, 1943, p. 180; SCIV, 5, 1954, p. 601; A. Aricescu, Pontica, 4, 1971, p. 351.
51. Em. Condurachi, Studien, p. 170, fig. 5 and 6.
52. Dacia, 3-4, 1927-32, p. 483; Dacia, 5-6, 1935-36, p. 351; Dacia, 7-8, 1937-40, p. 345; Dacia, 11-12, 1945-47, p. 209; Capidava, I, Buc., 1958.
53. Ibid., pp. 36-37.
54. Ibid., p. 43.
55. Ibid., pp. 45-50.
56. Ibid., pp. 58-59.
57. Ibid., p. 72.
58. Furthermore, how can there have been only a small and rudimentary fort in the time of Anastasius and Justinian, if there was, in the northern corner of the large fortress, a great 5th-6th century basilica?
59. Gr. Florescu, op. cit., pp. 62-66, 72.
60. R. Florescu, Date noi cu privire la cronologia Capidavei romane târziu, Pontica, 8, 1975, pp. 361-373.
61. Capidava, I, pp. 26-27.
62. Ibid., p. 28, fig. 2.
63. Ibid., p. 38, 45, 47.
64. Materiale, 7, 1961, pp. 573-579, pl. II.
65. Ptolemy, Geographia, III, 8, 3 and 1.
66. P. Polonic, Natura, 24, 7, 1935, pp. 20-21. The plans of Axiopolis have also been published by C. Schuchardt, Die sogenannten Trajanswalle in der Dobrudscha, in Abhandlungen der preussischen Akademie der Wissenschaften, Phil. -hist. Klasse, 12, Berlin, 1918, pp. 56-59. See also I. Barnea, SCIV, 11, 1, 1960, pp. 69-80.
67. V. Pârvan, Ulmetum, I, p. 578, note 3.
68. Procopius, De aedificiis, IV, 7.
69. A. Aricescu, BMI, 40, 3, 1971, pp. 58-60.
70. Al. -S. Stefan, Actes, p. 105, pl. 21, 22; idem, RMM, 46, 1, 1977, pp. 3-22.

71. V. Pârvan, Ulmetum, I, p. 506.
72. Ibid., p. 507.
73. V. Pârvan, op. cit., pp. 505, 509, 513-514.
74. V. Pârvan, Ulmetum, II, p. 246.
75. Ibid., p. 257.
76. In the present state of knowledge, the affirmation of V. Pârvan seems exaggerated.
77. These great towers, besides their well-known use as storehouses, were also, in our opinion, used by lookout guards, on the most vulnerable sides of the fortresses.
78. Ulmetum, I, p. 522.
79. Ulmetum, II, p. 291.
80. Ibid., p. 296.
81. V. Pârvan, Ulmetum, I, pp. 597-598.
82. V. Pârvan, Ulmetum, II, pp. 282-283, fig. 37.
83. Idem, Ulmetum, III, p. 270, fig. 2.
84. Idem, Ulmetum.
85. CIL, III, 13734 = ILS, 8938. DID, 2, p. 384.
86. V. Pârvan, Cetatea Tropaeum, p. 168.
87. V. Pârvan, op. cit.
88. V. Pârvan, op. cit., pp. 170-171.
89. V. Pârvan, op. cit., p. 168.
90. Gh. Papuc, Pontica, 7, 1974, pp. 325-336.
91. Themistios, X, 133-140 (= Fontes, 2, p. 63).
92. V. Pârvan, Cetatea Tropaeum, p. 181.
93. C. Scorpan, Pontica, 5, 1972, pp. 349-358; idem, Pontica, 7, 1974, pp. 339-362.
94. V. Pârvan, Cetatea Tropaeum, pp. 190-191.
95. Mss. 5139, p. 170, Acad. RSR.
96. Gh. Poenaru-Bordea, Dacia, NS, 12, 1968, pp. 409-411.
97. Ioana Bogdan Cătănicu, Monica Mărgineanu-Cîrstoiu, RMM, 2, 1975, pp. 59-62 (p. 60).
98. Not. Dign. Or., XXXIX, XK, (= Fontes, 2, pp. 209-210).
99. Procopius, De aedificiis, IV, 11, 20 (= Fontes, 2, pp. 472-473).
100. Dacia, NS, 1, 1957, p. 237.

101. DID, 2, p. 274 and the map.
102. N. Gostar, Studii Clasice, 5, 1963, p. 306.
103. I. Barnea, DID, 2, p. 373. Idem, Actes, p. 18.
104. Rev. Muz., 4, 1969, p. 349.
105. The excavations directed by C. Scorpan during ten years (1969-1970). See: Pontica, 5, 1972, pp. 301-328 and pp. 349-372; Pontica, 6, 1973, pp. 267-331; Pontica, 8, 1975, pp. 263-314; Pontica, 10, 1977, pp. 229-249; Dacia, 21, 1977, pp. 269-297; Actes..., pp. 109-116; Epigraphica, Travaux dédiés VII Congrès d'epigraphie, Buc., 1977, pp. 203-221; also: The XII International Congress of Roman Frontier Studies, 1979, British Archaeological Reports, International Series No. 71, 1980, p. 787.
106. Em. Popescu, Inscriptiile grecești și latine din secolele IV-XIII descoperite în România, București, 1976, p. 196.
107. Cohors(II?) Gallorum (A. Aricescu, Pontica, 7, 1974, p. 261 and Armata în Dobrogea romană, București, 1977, p. 66). But this was only a hypothesis. Certainly, the building of Sacidava was the work of Cohors I Cilicum (cf. the inscriptions discovered recently at Sacidava by the present author, 1979, see Appendix, in this work).
108. A stamped brick (Actes..., pp. 113, Pl. 27. Then, in 1979, the present author discovered another three inscriptions referring to Cohors I Cilicum (two dating from the beginning of the 2nd century and one from the middle of the 3rd century). These show that Cohors I Cilicum had its headquarters at Sacidava (Musait)—see Appendix.
109. The legio V Macedonica (C. Scorpan, Epigraphica, 1977 Buc., pp. 203-207, no. 1).
110. A burgarius, at Sacidava (C. Scorpan, Epigraphica, pp. 213-215). Also, in the 1979 excavations, I discovered several bricks stamped with Leg. XI Cl(audia), Leg. I Ita(lica), Leg. XI Cl(audia) Tra(ns)marisca.
111. Cuneus equitum Scutariorum (Not. Dign. Or., XXXIX, XL). Also, a tombstone of exarchus Proclinus (4th century) and another inscription of Valerius Onesima, centurio of legio II Herculia (N. Gostar, loc. cit.).
112. C. Scorpan, Pontica, 6, 1973, pp. 271-278, fig. 5.
113. The same technique as all the other towers at Sacidava; also curtain walls B (internal tower no. 2), E (the double wall, exterior).
114. Sacidava, curtain wall A. Histria, cf. Gr. Florescu, loc. cit.
115. DID, II, 1968, p. 517; Al. -S. Stefan, BMI, 4, 1971, p. 44.
116. V. Pârvan, Ulmetum, II, p. 266, fig. 20.
117. Gr. Florescu, SCIIV, 3-4, 1953, p. 598, fig. 1; idem, Histria, 1, 1954, pp. 84 and 92.
118. D. Tudor, Oltenia romană³, 1968, pp. 277-287. Idem, Arheologia romană, Buc., 1976, pp. 141-142 and 144-156. Idem, Sucidava, 1974, figs. 5. 6. 23.

119. Histria, 1, p. 84.
120. Ibid., p. 92.
121. C. Scorpan, Pontica, 5, 1972, p. 358 and Pontica, 6, 1973, p. 277.
122. Histria, I, 1954, pp. 106-115.
123. Idem, p. 165.
124. Idem, pp. 121-122.
125. Histria, 1, pp. 320-321.
126. SCIV, 5, 1-2, 1954, pp. 76-78, fig. 4.
127. SCIV, 6, 3-4, 1955, pp. 536-538; Materiale, 7, 1961, pp. 234-236; 8, 1962, p. 397.
128. Materiale, 7, p. 238.
129. Cf. Histria, 1, p. 324: a last level 580-610 A.D.
130. Materiale, 5, p. 289, fig. 1; Materiale, 7, pp. 239-240, fig. 12.
131. Histria, 1, p. 98.
132. Materiale, 8, 1962, pp. 394-396.
133. Ibid., In rooms b, h, two coins of Heraclius (Materiale, 7, 1961, p. 253).
134. Op. cit., p. 345.
135. SCIV, 6, 3-4, 1955, pp. 529-530.
136. Al. Suceveanu, op. cit.
137. Al. Suceveanu, C. Scorpan, Pontica, 4, 1971, pp. 155-170; Gh. Poenaru-Bordea, Pontica, 4, 1971, pp. 319-338.
138. Em. Condurachi, Histria, 1, 1954; Em. Condurachi, Histria à l'époque du Bas-Empire d'après les dernières fouilles archéologiques, Dacia, NS, 1, 1957, pp. 245-563, especially p. 256.
139. Ibid., p. 256.
140. A. Petre, Dacia, NS, 7, 1963, pp. 318-334.
141. T. Ivanov, Klio, 47, 1966, pp. 155-170; B. Böttger, Klio, 48, 1967, pp. 251-303; K. Wachtel, Actes, pp. 137-142.
142. T. Ivanov, Studien, p. 158.
143. D. Mitova-Džonova, Archeologia, 10, 3, Sofia 1968, p. 13.
144. Tabula Peutingeriana, 3, 2 (=Fontes, I, p. 739).
145. Klio, 47, 1966, pp. 357-362.
146. Klio, cit., pp. 155-160.
147. Studien, p. 157.
148. K. Wachtel, op. cit., pp. 138-140.
149. K. Wachtel, op. cit.; B. Böttger, Actes, pp. 131-136.
150. De aedificiis, 4, 7.
151. Theophylact Simocatta, Hist., 7, 2 (=Fontes, 2, pp. 543-544).
152. D. Tudor, op. cit., pp. 82-83.
153. Ibid., p. 83.
154. D. Tudor, Dacia, 11-12, 1945-47, pp. 147, 155.
155. Ibid., p. 147.
156. Ibid., pp. 150-151.
157. D. Tudor, Sucidava, 1974, p. 87.
158. D. Tudor, Dacia, 11-12, pp. 151-152.
159. D. Tudor, Sucidava, 1974, p. 94.
160. Ibid., pp. 95-96.
161. Ibid., pp. 94, 96-98; Gh. Poenaru-Bordea, V. Barbu, Dacia, NS, 14, 1970, pp. 251-295.
162. D. Tudor, op. cit., pp. 128-129.
163. Ibid., pp. 132-133.
164. D. Tudor, Dacia, 5-6, 1935-36, pp. 421-422, fig. 20.
165. Izvestiia (Sofia), 26, 1963, p. 133; 27, 1964, p. 217; 28, 1965, pp. 43-61; 29, 1966, p. 99; 30, 1967, p. 75; 32, 1970, p. 55; Archeologia (Warszawa), 12, 1961, p. 75; 13, 1962, p. 65; 14, 1963, p. 151; 15, 1964, p. 217; 16, 1966, p. 149; 17, 1967, p. 143; 18, 1967, p. 143; 18, 1967, p. 135; Latomus, 4, 30, 1971, p. 1154.
166. T. Ivanov, Actes, pp. 65-67.
167. A. Frova, Izvestiia (Sofia), 17, 1950, pp. 34-58; idem, The Congress of Roman Frontier Studies, 1949, Durham, 1952, pp. 23-30; T. Ivanov, Actes, pp. 59-64.
168. M. Gichon, Studien, p. 189, fig. 5, 10, 11; quadriburgia in Palestine, Tripolitania, Rhaetia, Libia, Mauretania, Dacia; A. Tuulse, Burgen des Abbandlandes, Wien, 1958, p. 17, fig. 11; H. v Petrikovits, JRS, 61, 1971, pp. 186-189; M. Gichon, op. cit., p. 189; I. Atanasova-Georgieva, Actes, p. 170; N. Gudea, Actes, pp. 178-179.
169. Al. -S. Stefan, Actes, p. 108; T. Ivanov, Actes, pp. 68-69.
170. Archeologia (Sofia), 11, 3, 1969, p. 31; 12, 1, 1970, p. 26; T. Ivanov, Actes, pp. 68-69.
171. D. Tudor, Oltenia romană², p. 228 and pp. 356-358.
172. Iordanka Atanasova-Georgieva, in Actes, pp. 167-172.

173. P. Petrović, Stare culture, p. 95; V. Kondić, op. cit., p. 46.
174. V. Kondić, Stare culture, p. 99; Idem, Actes, p. 46.
175. N. Petrović, L. Zotović, Stare culture, pp. 105-106; V. Kondić, op. cit., p. 41.
176. E. Čerškov, Stare culture, pp. 143-144.
177. V. Kondić, op. cit., pp. 48-49, fig. 4.

CHAPTER III

CONCLUSIONS

A. TOPOGRAPHICAL PROBLEMS IN THE LOWER DANUBE REGION. THE EVOLUTION OF FORTIFICATIONS AND CONSTRUCTION METHODS

As was stated at the beginning of chapter II, in the Lower Danube region we lack data for the early Roman fortifications, so our conclusions refer only to the period from the end of the 3rd century.

In the Roman Empire a process of renovation and change takes place at the end of the 3rd and the beginning of the 4th centuries, a process with its origins in the reign of the Emperor Aurelian, but coming to fruition in two major stages, one in the reigns of Diocletian and Constantine I and the other in the time of Anastasius and Justinian. These two stages stamp the defensive system of the limes and especially the forts themselves with the features characteristic of the late Roman period.

In fact, the reorganization of the army and of the fortifications is the key phenomenon containing in it the seeds of all the other transformations—the renunciation of an offensive policy in favour of a defensive one, the policy of maintaining territories within their existing boundaries and internal reforms, which required the military reorganization of the empire into a static defensive system on the limes, reinforced by a mobile army. In this period the limes is organised to form a defensive military complex with a mobile strategic reserve. In accordance with the new requirements and their new rôle, the structures and fortification systems had to change. Their evolution and development on an improved plan, intelligently conceived, flexible and pragmatic, seems a natural phenomenon, completely justified historically and forming one of the reasons for the survival of the Empire along the Lower Danube for about another three centuries, despite the fact that the conditions were the most unfavourable and difficult in their entire existence.

This evolution from offensive to defensive was explained and demonstrated with concrete examples by my predecessors such as V. Pârvan and by contemporaries such as H. Schönberger, H. von Petrikovits, G. Forni, E. Condurachi and D. Tudor.¹

After a study of the topography and stratigraphy of a great number of fortifications, we have arrived at conclusions concerning the late Roman phase of the typology of the fortresses.

We can discuss three major types of military fortification on the Lower Danube limes:

I. The early Roman camps of rectangular shape, adapted with more or less modification, to meet the new defensive requirements. This type can be seen only very rarely, the only clear examples being Drobeta (1st century) a classical camp rebuilt according to the new style in the late period, Boljetin, and very probably Veliki Gradac and Novae (Čezava).

II. Newly built fortifications of the late Roman period, the plans of which are characterised by adaptation to the condition and structure of the ground. The majority of the 4th-6th century fortresses belong to this general type, which explains the great variety of forms and variants. Many of these are caused by the numerous restorations which took place in the 5th-6th centuries.

III. Fortifications characteristic of the beginning of the 4th century, the Tetrarchic period. These quadriburgia have a rectangular plan, and are of small dimensions, with four towers at the corners.

1. In the late Roman period important changes were made in the few earlier forts which remained in use, though the basic elements of the original plans were retained, and a certain symmetry and regularity survive. First the walls are increased in thickness up to as much as 3 m and are made higher (7 m). Strong external towers are added to the walls, with platforms for ballistae. The gates are flanked by external towers, usually with rounded fronts. The number of gates is reduced to one. Outside, defensive banks and ditches are constructed.

Important changes take place to the internal organization and town plans. If a certain symmetry is maintained at Drobeta, a disorderly arrangement is typical of the rest, the intra-mural buildings being determined by the precinct walls and the streets no longer directed according to the gates, but running close to the walls and towers.

II. Late Roman fortifications

We can distinguish in this period two major groups: a) military fortifications: fortresses or burgi on the limes, base and supply camps, fortifications along the lines of communication, and b) civil fortification: fortified towns, fortified houses, places of refuge. We will consider only the military fortifications on the limes, though referring when necessary to the other categories.

All the late Roman fortifications, both military and civil, have a general characteristic feature: they are more defensive than at any previous period, with stronger and higher walls and towers.

At the end of the 3rd century not only the actual frontier is fortified with fortresses, strong-points or burghs closely and regularly spaced, but also the interiors of the provinces are fortified. The more important settlements and those situated near the lines of communications or situated on the access routes of the enemy acquire defences. The communication routes are also multiplied and extended in an attempt to counter the extreme mobility of the barbarians.

The defensive approach leads to the erection of fortifications on hills and promontories. Their geographical and natural topography must be very favourable for an efficient defence. Maximum use of the advantages of the

ground makes the old plan of the early Roman camp inappropriate and leads to a great variety of plans according to the nature of the ground. The square or rectangular plan becomes trapezoidal, irregularly polygonal, oval, circular, rhombic and even triangular.

Generally speaking, we may regard the circular and oval plans as appearing in the Constantinian period, while the trapezoidal or polygonal plan is not only commoner but older, dating from the Tetrarchy.²

The irregular plans confer a certain originality and great variety on late Roman fortifications, as do the shapes of gates and towers, together with their placing. The earlier square or rectangular towers set into the walls continue in the second half of the 3rd century, but they are generally replaced by fully external rectangular towers. Most characteristic are the U-shaped towers with rounded fronts. Round towers, known since the Principate, reappeared in military construction and were developed with modifications and innovations. Semi-circular external towers appear in fortifications from the second half of the 3rd century. The rounding of the corners of the early Roman camp can also be seen as a beginning of this tendency. Round towers are adopted by military architects by the time of the Tetrarchy and become widespread in the reign of Constantine the Great. The combination of rectangular and round towers is characteristic, but these are external, with very rare exceptions.

In a detailed analysis of the 4th-5th century late Roman fortifications in north-western Europe, H. von Petrikovits comes to the conclusion that different defensive methods have been used simultaneously in the same area, so that the tendency to classify chronologically late Roman fortifications on the basis of their typology is wrong,³ an opinion with which we are in complete agreement, as we will demonstrate by applying some trials of typological classification to the Lower Danube area.

Type IIIA. Quadriburgia. Such fortifications are characteristic of the Tetrarchic period, being erected in the places where there were no earlier fortifications, especially in Dacia Ripensis and Moesia Superior.

M. Gichon, examining the quadriburgia from Kasr Gehainije II (Palestine), Benia bel Resheb (Tripolitania), Aquas Herculis (Libya), Zana (Mauritania), Irgenhausen (Rhaetia) and Puținei, concludes that they date from the Tetrarchy, but it is interesting that he discovers typological antecedents for these quadriburgia long before the Roman period in Palestine, the more convincing examples being the citadels of King Saul at Gibeon and of King Solomon at Kadesh Barnea.⁴

But how are we to explain the wide distribution of this type of fortification, even in the Tetrarchic period, in different areas (North Africa, Arabia, Syria, Europe). In our opinion, the first explanation lies in the utility and functionality of these citadels, which are easy to build, are of small dimensions and so require reduced garrisons, are placed close together, but are strong and resistant to attack and are easy to defend. The type is revived in the Tetrarchic period because at that time great innovations in defensive policy and strategy of the limes take place, together with an increasing knowledge of ancient oriental fortifications. Diocletian knew the advantages of these small forts and he understood the necessity of employing them in certain frontier areas,

where they seemed to offer a quick and lasting solution and where in the previous period there had been few and weakened fortifications. Also, in Dacia Ripensis and Moesia Superior, Aurelian's withdrawal from Dacia forced radical changes in the limes.

Type III has, we believe, a variant (III B), the citadel of reduced size and triangular, with three round towers at the corners. We know of two such forts, at Ostrovul Banului and Bosman, where the adaptation to the ground conformation is apparent, leading to the alteration of the regular rectangular plan into a triangular one. It can once again be seen how flexible, adaptable and ingenious were the military architects who built the fortifications of the Tetrarchic period in the 4th century.

Consideration of the fortress plans, of the plans of the precinct walls and of the defensive towers leads us to the conclusion that in the great majority of cases, we have in the late Roman period on the Lower Danube limes, fortresses of irregular shape, the plans of which are determined by the nature of the terrain. Even the area within the fortress is variable, being determined by the terrain. The rectangular plan is still retained, but is structurally modified during the reconstruction of some earlier forts.

In terms of their importance, the fortifications fall into two categories: legionary forts (Noviodunum, Troesmis-East, Durostorum, Novae), and fortresses which were the headquarters of auxiliary troops (a classification valid only for the 4th-5th centuries). In the 5th-6th centuries every fortress sheltered a garrison.

The fortresses could be classified in terms of their size, which would also assume a certain size of garrison and therefore also a gradation of strategic importance. This would yield three categories: a) large fortresses (Libida, Noviodunum, Tropaeum, Novae) b) medium-sized fortresses (Troesmis, Sacidava, Jatrus); and c) small fortresses (Dinogetia, Boljetin, Hajduča, Vodenica).

A typological classification is also necessary for towers (Pl. XLVIII). Two main categories can be noted from the beginning: I) towers with rounded fronts, and II) rectangular towers.

I. Towers with rounded fronts are of many types:

Ia) The horseshoe-shaped towers, with a front which is an arc of a circle supported by two straight sections, usually perpendicular to the precinct walls. The corner towers at Troesmis-East, Capidava, (L)ibida, Ulmetum are of this type. A variant is the corner tower at the late Roman fort at Pesta.

Ib) Round towers of horse-shoe shape, narrowing at the base (Ulmetum, at two corners; Tropaeum, the north-western tower; Jatrus, the three corner towers; and Dineia).

Ic) Towers with rounded fronts and straight parallel sides, the so-called U-shaped towers. These are very common (Tropaeum, (L)ibida, Ulmetum etc.).

Id) Semi-circular towers, forming an arc of a circle, the base being the fort wall (Noviodunum, Boppard).

Ie) Circular or round towers (Ibida, Čezava-Novae, Bosman, Castra Martis and Ulmetum, the western corner).

There are also some variants, intermediate between Ia, Ib and Ic (Boljetin, Dinogetia, the north-eastern corner). Unique variants are found at Sucidava (tower A), Ravna, Drobeta, Intercisa and Saldum.

II. Rectangular towers may be classified as follows:

Ila) Rectangular towers (Tropaeum, Ulmetum, Capidava, Libida, Sacidava).

Ilb) Square towers (in some quadriburgia).

Ilc) Rhombic towers (Nova Cerna, Altrip).

IId) Trapezooidal towers (Sucidava).

III. Very rarely, polygonal towers (Sucidava, H. Vodenica).

There are a great variety of forms for type II fortifications, depending on their function and situation.

Type Ila. We have only one example of a late Roman fortress on the Lower Danube limes with exclusively rectangular towers: Sacidava, 4th-6th century. Rectangular towers are a characteristic feature of the fortified towns of the western Black Sea coast, Histria and Callatis (in the 6th century Tomis had a U-shaped tower).

Type Ilb. The majority of fortifications of rectangular towers alternating with towers with rounded fronts.

Type Ilc. Some fortresses have only towers with rounded fronts (U-shaped and horse-shoe shaped).

Type IId. On the Lower Danube limes we do not find fortifications with circular towers, except Castra Martis (situated on the conventional limit of the Lower and Middle Danube, and not on the limes but on an internal communication road). Fortresses and burgi with circular towers are characteristic of the Middle and Upper Danube.

The most numerous group of fortifications are those of Type Ilb, towers with rounded fronts (U-shaped or horse-shoe shaped) alternating with rectangular towers:

Troesmis-East. The majority of the towers are U-shaped (Ic), with horse-shoe shaped towers (type Ia) at the corners. There is a big rectangular tower (phrourion) on the middle of the principal side and an isolated square tower (probably a late restoration) on the eastern side (Ilb).

Capidava. Horse-shoe shaped towers (type Ia) at the corners, U-shaped towers (Ic) on the principal side together with a big rectangular tower, and

on the other sides only rectangular towers (IIa). In fact the principal sides of Capidava and Troesmis-east are identical, being the only such similar examples on the Lower Danube, and raising special chronological problems (see below).

(L)ibida. Both fortresses have towers with rounded fronts (type Ia at the corners and Ic on the curtain-walls) and rectangular towers of type IIa. Extremely interesting is a circular tower (type Ia) in the fortification, the only isolated tower in Dobruja.

Ulmelum. Rectangular towers, except the three corners with horse-shoe shaped towers (type Ia) and U-shaped towers at the two gates (IIc).

Tropaeum Traiani. Only U-shaped towers (type Ic), except for one horse-shoe shaped tower (phrourion) on the western side.

Iatrus. Horse-shoe shaped towers (type Ib), with walls forming a smooth, continuous curve with no straight sections, at the three principal corners, for the rest U-shaped towers (Ic) and a large rectangular tower (phrourion).

Novae I. U-shaped towers, and also rectangular ones at the western gate.

Veliki Gradac. U-shaped towers (Ic) at the corners, the rest rectangular (these are in fact the old towers from the period, rebuilt).

Boljetin. Horse-shoe shaped towers (type Ia) at the corners, rectangular towers along the sides.

Ravna. Rectangular towers, except for one U-shaped tower (Ic), and one of an unusual shape and function.

Type IIc. Fortifications with exclusively rounded front towers of U- or horse-shoe shape are rare.

Noviodunum. In the last phase of the fortress, on the northern side only there were U-shaped towers (Ic). The other sides are not known.

Dinogetia. At the corners there were horseshoe-shaped towers of type Ia, the rest being U-shaped towers (Ic) and a type Ib tower.

Oescus II. Horseshoe-shaped towers (Ib).

We may add the IIc type of fortification at Tropaeum and Iatrus, that have only rounded fronts and only one big, rectangular tower (phrourion).

Type III. Fortresses with circular towers (Id and Ie) are characteristic of the Middle and Upper Danube (Novae-Čezava, Bosman, Castra Martis, Jovia)⁵ or, in the west, of the German limes at Deutz, Icorigium.⁶

Sucidava and Drobeta have a special place in this attempted classification. Sucidava has rectangular towers alternating with trapezoidal ones (IIId) and has corner towers with semi-circular fronts and straight sides, and also a polygonal tower (type III). Taking into consideration that semi-circular towers are later, we regard Sucidava as a variant of type IIA. Drobeta has rectangular and U-shaped towers (therefore type IIB), but at the corners it has rounded-front towers of a special type made from a large arc of a circle

with straight sides set at an angle to one another (fan-shaped horseshoe towers). Analogies for this type of tower and also for the plan of the fortress as a whole can be found at Intercisa.

One special feature of the limes fortifications of this period is important for its effect on the town plans and their typology. In our opinion this supports the view that local conditions and local initiative were all-important, rather than architecture. This is the application of various systems of doubling and redoubling of all or part of the precinct walls and of refortification of the towers and gates with additional walls, platforms, secondary internal towers and so on. We can give many examples in the 5th-6th centuries and perhaps even from the end of the 4th century: Sacidava, Sucidava, Novae, Boljetin, Augusta Traiana, Hissar and Dineia (the most ingenious being Sacidava).

Some fortresses have massive pillars or buttresses, usually quadrilateral in section in rows along the insides of the precinct walls. These pillars supported a wooden platform round the top of the walls. They may have been part of the original structure or later additions. They are found at Drobeta, Saldum, Nova Cerna, Castra Martis. At this last quadriburgium there are such pillars for a floor on two sides and buttresses on one side, with stairs and encircling roadway. In other cases, the pillars belong to some military building, such as barracks for soldiers. An example is Sucidava, where a road round the original precincts was replaced by a second round road with a second, double precinct wall, so that the pillars must be assigned to buildings.

A classification has been put forward for the types of fortresses in Scythia,⁷ a classification with which we cannot agree because the typological division already mentioned was exaggerated and we have, as has been said, the adaptation and evolution of the older types of Roman fortification to meet new conditions.

R. Florescu thinks that he can detect differences between the three defensive limes (the Danubian limes, the central limes and the western Pontic littoral) in terms of the type of fortification. Along the Danube, according to him, the following types appear: a) the Danubian type, with an alternation of quadrilateral and round towers (e.g. Drobeta, Capidava, Troesmis-West); b) the quadriburgium type (Gornea, Puținei); c) the Thracian type, polygonal, with U-shaped and circular towers and with the quadrilateral phrourion (Dinogetia, Troesmis-East, Axiopolis, Iatrus, Novae).

We must make the following corrections: a) We cannot speak of a "Danubian" type of the early classical Roman camp, because this is a general type that can be seen throughout the Empire; b) From this so-called "Danubian" type we exclude Capidava and especially Troesmis-West; c) the quadriburgia type is not a survival; it is on the contrary characteristic of the Tetrarchic period; d) Quadriburgia are not only characteristic of the Danubian limes, but of other areas such as Palestine, Syria and North Africa, also Rhaetia, as well as inside the Dobruja (Mircea Vodă and Traian); e) we do

not understand why the "polygonal" type is also "Thracian", since not a single connection of Thracian origin of these late Roman fortresses can be pointed out. On the contrary, the origin of the irregular polygonal plan is to be found in the evolutionary process, in the adaptation of the typical Roman camp to local conditions. If we really want to find an area where the type originated, we should seek it in the Middle East, where this kind of fortification originated as a town defence and whence, like the quadriburgia and some aspects of civilian town-planning, it spread as a new fashion across the Empire under the Tetrarchy. We must not forget the irregular polygonal plan is universal in all the provinces of the late Empire. Where did R. Florescu find phrouria at Dinogetia, Axiopolis or Novae?

For the internal limes, Florescu considers the exclusive use of the polygonal type, overlooking the quadriburgia of Traian, Mircea Vodă and Castra Martis. Furthermore, if we meet all the forms of fortification both on the Danubian and the interior limes, what can the typological difference be between the two defensive limes?

Some variants of polygonal type are encountered: a) square with a cut-off corner and without a phrourion; b) an irregular pentagon with a right angle; c) triangular or rectangular with a convex side, with a phrourion and a single gate (Iatrus, Troesmis-East and Dinogetia are false examples, triangles or rectangles being out of the question).

It may be pointed out that many other variants such as rectangles with a rounded corner (Novae, Oescus) can be found. We repeat that all these "variants" do not represent real categories and are not separate types, but only represent local solutions to local topographic problems. Such 'variants' include triangular, oval, circular and perfectly trapezoidal plans, which do not support Florescu's hypothesis. That author contradicts himself, for after attesting that all three lines of defence form one single system for the Scythian limes, he affirms in relation to the secondary precincts on the southern side as a separate fortification, that Tropaeum did not have a limitanei garrison, but one of comitatenses. The analogy with Nicopolis ad Istrum might have been significant, if at Tropaeum one could not prove that it is not a matter of a straightforward fortification, but of the defence of a reservoir.

It is very difficult to select specific features characteristic of the Scythian limes or for the Lower Danube, from the topographical and town-planning point of view. Generally speaking, we can say that in Scythia and on the Danube up to Bononia-Drobeta, large fortifications prevail with very few burgi and towers (Traian, Murcea Vodă and, later, the tower near Seimeni?). A second characteristic is shown by the plans, which are always trapezoidal or irregular polygons, adapted to the ground with original and ingenious combinations of different elements of fortification (towers, gates, double curtain-walls, platforms). We emphasise that Troesmis East and Capidava, which seem to be exceptions, have in fact a single straight and symmetrical side, which is the front of the fortress, the other sides being irregularly constructed in with the nature of the ground. These main sides of Troesmis East and Capidava bring a note of originality to the Lower Danube limes, and we will return to them. Another characteristic note is struck by the big rectangular towers (phrouria) at Troesmis, Tropaeum, Iatrus (all 4th-century), and from

Ulmetum (6th century). We can add to these individualistic elements, features at Sacidava, Sucidava and Drobeta (the last two being near the limit of the Lower Danube area).

On the rest of the Danubian limes and the Rhine there are many fortifications which follow the traditional rectangular plans. Also, burgi are very often encountered, especially quadriburgia but also triangular forms, as well as towers. Towers with rounded fronts are a common feature of the defences.⁸

In order to arrive at more secure conclusions, we need much more firm chronological evidence for the constructional stages, at least so that we can distinguish the plans of the fortresses dating from the first major period of the 3rd century to the 5th centuries, from the second, that dating from the end of the 5th to the middle of the 6th century.

Although there is a lack of precise data, we can in the cases of some fortresses distinguish these two major stages in the general plans. We will attempt to give some examples for which reasonably sure data is available. Sacidava had rectangular towers in the 4th century. In the 6th century the towers were still rectangular, being given double platforms inside, blocking some gateways, adding the fortification at the eastern gate and probably extending the civil settlement out to the second earthwork. Tropaeum Traiani, as the recent excavations have shown, very probably had U-shaped towers in the Diocletianic period, as it had later, but smaller and more widely spaced. In the reign of Constantine the walls were thicker, with very numerous U-shaped towers, a feature that seems to have persisted in the first half of the 6th century. As we will show, the northern part of the western precincts, with its special typology resembling that of the fronts of Troesmis East and Capidava, may reveal the existence of an earlier stage dating from the first years of the reorganization of the Scythian limes. At Sucidava, the evolution was similar as regards the strengthening of the fortifications. In the first stage (Aurelian) the original outer wall was erected with five external towers of unknown form at the principal corners. In the second stage (Constantine I) the wall was reinforced by a second wall erected near the first and four new intermediate external towers.

Very probably the external trapezoidal towers A, C and E were added at the same time. In the Justinianic period the internal towers were built together with new walls and towers in the eastern corner of the fort. Drobeta shows an atypical evolution, the internal towers that doubled the outside ones being removed in the last major constructional stage (5th-6th centuries). At Capidava, although the plan remained the same, new buildings appeared in the 4th century towards the Danube, probably surrounded by a supplementary precinct wall, then in the 6th century (in our opinion not in the Anastasian-Justinianic period but later) we can see a contraction to a small, weakly fortified burgus.

Dinogetia retained the same walls from the beginning of the 4th century to the reign of Constantine, although we note extensions such as the extra-mural thermae. They were destroyed and abandoned at the end of the 4th century or the beginning of the 5th.

At Troesmis and Noviodunum both the fortresses and the civilian settlements contracted (Troesmis was very probably reduced to the western fortress only and Noviodunum contracted by building a new precinct wall. In the 6th century the two centres were no longer legionary forts, but were the strongly fortified headquarters of limitanei garrisons.

At (L)Ibida, as we tried to demonstrate above, the small fortification (I) is earlier, and the conformation of the south-eastern side, which was carefully ordered and symmetrical, identical with the same sides at Troesmis East and Capidava. It must therefore be contemporary with Troesmis East and thus date from the arrival of legion II Herculia under the Tetrarchy, and with Capidava.

As a defensive system, Castra Martis offers a full analogy to the process of extension seen at (L)Ibida. Furthermore, the large fortress (II) at (L)Ibida does not resemble that at Tropaeum typologically, but in the alternation and positioning of the round and rectangular towers it is more like that at Ulmelum, a fortress erected in its present form under Justinian.

Axiopolis, according to the plan drawn by P. Polonic, shows an extension of the fortified area.

Great expansion can be seen at Oescus and Novae too, without specifying the period when the process took place (under Constantine or Justinian). Both extensive fortifications functioned in the 6th century. Expansion also took place at Hajdučka Vodenica, Castra Martis, and Nova Cerna. On the western shore of the Black Sea, Tomis is a good example of expansion in the late Roman period. At Callatis we cannot affirm anything with certainty in the present stage of research, and the contraction and decline of Histria compared to its development in the 2nd-3rd centuries is explained by the silting-up of the gulf and the cutting off of navigation. Towards the south, examples of development in the Justinianic period can be multiplied: Nicopolis ad Istrum, Hissar, and so on.

Therefore we see, during the late Roman period along the Lower Danubian limes, mainly expansion and development of the existing early fourth-century fortifications or their maintainence, in contrast to the rare cases of contraction.

We will now attempt to trace the development of urbanisation in the limes fortifications from the 3rd-early 4th centuries to the 6th century:

I. The initial constructional stage a fundamentis, that is the reconstruction of the old Roman camps according to an entirely new conception and plan.

II. A stage of great development under Constantine the Great and his successors, which can be exemplified not only by some cases of extension of the fortified areas (Castra Martis, Oescus II, Libida) but most specially by reinforcing the fortifications within the original plan (Dinogetia, Capidava).

III. Standstill and interruptions of occupation or abandonment of the fortifications resulted from the Gothic and Hunnic invasions of the 5th century.

IV. The epoch starting with the reign of Anastasius reaches its climax under Justinian (roughly the first half of the 6th century) and is characterised as shown above, by a new great development of the Danubian limes fortifications, characterised by the general rebuilding of all the fortresses according to the old plan of the precinct walls, but with different town-planning inside, by extensions (Sacidava, Axiopolis, Novae) or by the erection of a new fortress (the unique example of Ulmelum).

V. In the second half of the 6th century we observe either the maintainence of the former defended areas or their contraction (Capidava, Troesmis, Noviodunum). Therefore we believe that Justinian's reign is a period of maintaining and sometimes extending the fortified areas and of the erection of new fortresses. The explanation must be sought in the changes in population at the end of the 5th century and in the first half of the 6th century, together with the sudden economic changes under Anastasius. There was an increasing population in and around these fortified centres. We must not neglect the repeated settlement of barbarian federates on the limes, at centres in which there were based not only conventional military units but also a population of limitanei, frontier-guard-farmers with their families, their numbers increasing continuously in spite of all vicissitudes. Only towards the middle of the 7th century did the deteriorating situation on the Imperial boundaries cause a reduction in the population and the gradual abandonment of the fortresses.

The so-called military fortresses cannot be differentiated from the fortified settlements in the late period in terms of the defensive details of their walls or by their interior plans. This is because the limitanei system and its perpetuation eventually led to the disappearance of the differences between the civil population and that with military obligations. This uniformity is visible especially on the limes and in the second line of defence, as a result of military obligations being uniformly distributed and perhaps because the whole area was a privileged territory, with fiscal immunities being offered to all the inhabitants in direct relation to their military obligations.

In the late period, the internal organization of the fortresses and their town-planning is characteristic. Generally speaking, the same internal arrangements are met with both in the military fortresses and in the fortified civilian settlements, especially in the 5th-6th centuries. No order or symmetry is observed, the streets are numerous, narrow and winding, and the buildings are usually small with irregular rooms and frequent restorations. The Christian basilica, the only imposing buildings, are situated in different parts, according to circumstances.

We have not enough data and plans for the study of the interior arrangements of the fortresses, because of the lack of excavations. In cases where we have some data, its breakdown into periods is difficult. Better-appointed

structures have been discovered in the excavations carried out at Dinogetia, Troesmis East, Tropaeum, Iatrus and Drobeta.

The interior plan of Dinogetia is significant and generally speaking characteristic for the limes. When the fort was initially constructed under the Tetrarchy, it had an ordered internal plan. This was demonstrated by the form and placing of the principia and the praetorium. The 4th century buildings respect the original street lines, as is evident in the ordering of these buildings fronting on the streets and the official buildings and some big buildings such as the domus in the north-eastern quarter, which adapt their plans to the already existing topography. The increasing population in the 4th century leads to the construction of new extra-mural buildings (thermae). Only the Christian basilica, with its special importance, is awarded an interior site, but in this case, too, the position and shape of the church is adapted forcibly to the existing structures.

At Dinogetia we find at least five major phases in the town plan: a) the principia and praetorium; b) the 4th century buildings; c) the domus and thermae; d) the basilica; e) 6th century buildings, with the ordered plan in the 4th century and the 6th century plan disorder stage.

Troesmis East has a special interior topography. This fortress, although it has a Christian basilica and large civilian buildings, at the same time has an internal organisation of a distinctly military character, as is shown by the square building on the south-western side with many rooms of equal size (the so-called 'cellular' construction).

The same cellular construction can be seen in the northern half of the western side, along the northern side and along the southern side where there is a long basilica, with a row of rooms.

In Baudry's plan we notice ten such long, cellular barracks (strigae and contubernia). Furthermore, outside the walls, on the southern side in the area between the wall and the bank of the Danube, we find two more such buildings (though we may remain cautious as to the authenticity of the reconstruction plan of Baudry-Boissière). We must also consider the ordered, symmetrical arrangement of these long huts of equal size. The existence of large open spaces, both inside the large south-western square, and between the huts, running lengthwise between them and between the huts and the precinct wall to the west and north, is also to be noted.

We may attempt to separate the fortress plan into two periods. In order to obtain a hypothetical plan of the fortress in its first phase in the reign of Diocletian when legio II Herculia was based here, we believe it to be necessary to exclude first of all the basilica and some private buildings of irregular shape, but not all the buildings with apses. On the resulting plan we notice the division of the interior of the fortress into two parts by the principal east-west street, leading, in our opinion, to the principia (see below). In both sectors, the barracks are disposed around the main square, with a wide space in the middle. The apsidal building situated in the south-eastern sector, in front of the large square, could very well have belonged to the commandant (praetorium). If we consider the location of the edifice in the most clearly military area, and also the porch with colonnades that can be seen on three sides of the square, in front of the praetorium entrance.

In the north-eastern sector, at the eastern end of the principal street, a large building, with an apse and 'cells' round the sides and a colonnade by the entrance, appears to be the basis of many analogies, the principium, with the characteristic features of the late imperial period.

Thus on the basis of probabilities we have reconstructed the plan of a military fortress of the early Tetrarchic period. If aerial photography confirms the major features indicated by Baudry and excavations confirm the plan and chronology proposed by us, we would then have, for the first time, the plan of a military fortress, a legionary headquarters, dating from the time of Diocletian on the Lower Danube.

In the second phase, probably at the end of the 4th century and the beginning of the 5th, two Christian basilicas, one of which lay above the old principia, were built, and new edifices were erected in the open area of the northern square and beside the precinct wall.

It is also noteworthy that all the buildings, in both the early and the late periods, are aligned to a rectangular plan of great regularity, in a way not found anywhere else at this time on the limes or in the Balkan provinces.

This regular rectangular town plan is very different from that of the other towns and fortresses, far surpassing that of Tropaeum or Histria. We may add to this the absence of oblique cross walls, of asymmetric restorations, of a basilica or superposed edifices, in short the lack of features characteristic of 6th century town planning (compare Ulmetum, Noviodunum, Dinogetia, Tropaeum, Iatrus etc.). These observations indicate two possibilities: a) the internal town plan remained unchanged down to the 6th century, a situation without supporting data or analogies, or b) the eastern fortress at Troesmis functioned as a legionary fort in the 4th and 5th centuries until the ruinous Gothic and Hunnic invasions, after which it was abandoned, the centre being moved in the 6th century to the western fortress, which has a system of walls characteristic of the 6th century. This hypothesis is supported, as the author has shown, by the fact that the latest earthworks do not surround Troesmis-East, and by the alignment of the main extramural roads.

A military structure, with praetorium, principia and barrack-blocks is found at Drobeta also, both in the late 3rd and early 4th century phase and in the 5th century phase, when it contained a special structure which we shall return to in the section on principia. The absence of civilian or religious buildings may be explained by the special situation of Drobeta as a bridge-head north of the Danube, where the garrisons were probably changed, with the permanent headquarters south of the Danube. At Troesmis East the military structures are replaced by civilian and religious ones, though recognizing the presence of limitanei. At Drobeta, on the other hand, the character of the site is pure military, this fortification being an exception to the generality of fortified sites on the Lower Danube limes.

To arrive at a better understanding of 4th century architecture, we will consider a specific type of central building or rather architectural ensemble called the principia, which must not be confused with another important central building of Roman forts, the headquarters building or praetorium.

Some researches indicate that the central structure of the legionary forts or of other fortifications is the principia not, as was long believed, the praetorium. In some cases, in the late period, we have a single architectural complex situated between the principal gate and the end of the via praetoria, composed of the forum, temple, colonnades and other structures together forming the principia.⁹ The essential part of this military forum is the sacellum, a large hall with an apse, flanked on either side by shallow rooms with the function of scholae and repository for the archives.¹⁰ The term principia is also extended in the late Roman period to include the whole monumental ensemble of the administrative buildings and the religious area for the imperial cult.

The researches and interpretations of R. Fellman on the principia at Palmyra and Vindonissa relate to some late Roman camps in England, but specially for Drobeta in Phase III (5th century). Generally speaking in late fortifications, the arrangement of the interior features follows different plans, but usually the principia occupies a central area as it did in earlier periods. This fact applies not only to old fortifications but also to the newly erected ones in the Tetrarchic period.

Fifth-century Drobeta belongs to a special type, rarely encountered, found at Palmyra, Portus Adurni and Cardiff,¹¹ where the two principal streets cross at right angles in the middle of the fort. In this monumental architecture, with streets with colonnades and a tetrapylon at the crossroads, we can see civilian and urban architectural influences from the Orient and North Africa. In these fortifications, the principia that formed an essential part of the fortresses of the Tetrarchy and of the 4th century, occupies a central place. There are some examples but these occur in a different type of internal plan such as that found at Luxor, Dura Europos and Palmyra. Also, at Iatrus, the via principalis starting from the east gate, flanked by colonnades, leads to a monumental edifice, with apse and porch,¹² thought by R. Fellmann to be the principia.¹³

We believe that we can recognize principia both in the early fort at Drobeta, and at Slăveni, where the classical plan was followed.

To return to Scythia, we think we can find such a monumental complex in the plan of the first period fort at Troesmis East. The via principalis starts at the west gate with colonnades, and ends at the east side in a monumental structure, with a central apse and lateral rooms, resembling the plans of many principia (Palmyra, Vindonissa, Limpne, Lambaesis, Corbridge etc.). We can also see in Baudry's plan another main street, crossing the fortress from north to south, starting from a gate on the southern side and running across to the big phrourion. The two streets cross each other at right angles.

Another monumental complex is located in the south-eastern area, in front of the principal military square. It consists of a large central building, with colonnaded porticoes and an apse, surrounded by various buildings that

could be parts of a big palace. It is difficult to decipher Baudry's plan at this point. There, two lateral colonnades and a structure, possibly an altar, in the middle of the central square.

It is difficult to distinguish between the different functions of these two complexes, since their dating is uncertain, but it seems plausible to suggest that the two large structures represent the administrative and religious centres, and the headquarters of a legion and of the surrounding territory respectively.

It is possible that in the first stage, the south-eastern area with the central building with an apse, the colonnades around the square and the altar, represented the praetoria and perhaps the commandant's quarters, while the building with an apse in the north-eastern quarter, at the end of the via principalis, was the principia. Later, after the Tetrarchy, in the second phase, the restorations and new constructions (especially the basilica) took over the principia. The whole central administrative-religious centre, which replaced the principia, compressing only in the south-eastern area (which, from a town-planning point of view, remains unchanged).

Even if Baudry's plan contains fanciful elements, and the future may reveal a number of surprises, there must be a principia in a fortress like Troesmis East, which was a legionary headquarters and the military, administrative and religious centre of a wide area.

* * * *

Though it may be difficult to classify the sites architecturally, nevertheless certain conclusions can be drawn. We may attempt a classification, although the exercise is risky in our opinion in view of the paucity of stratigraphic evidence.

At a few fortresses we find a special and characteristic feature. In these forts the front side, that facing in the direction of probable attack is in consequence the most vulnerable. Examples are the north side of Troesmis East and the north-east side of Capidava. We notice resemblances in the south-east sides of Libida I and II, the south side of Iatrus, and the northern part of the straight west side of Tropaeum. The front sides are preserved at Troesmis East and Capidava; that at Libida having been much modified during later rebuildings, and those at Iatrus and Tropaeum represent variants of the original type. Pl. XLVI.

We can now examine the ways in which these precincts at Troesmis East and Capidava are original. As has been shown above, it is in their fronts, which are always straight, and which are the only one of the sides which are straight. There is also the regular alternation of rectangular and U-shaped towers in a symmetrical facade, in the centre of which is a large rectangular phrourion, flanked by U-shaped towers and with horse-shoe shaped towers at the corners. (type Ia). The towers are set at equal distances from one another.

The arrangements are identical at Troesmis East and Capidava, and are somewhat modified at the other three fortresses.

At Iatrus, the similarity of the south side is obvious, except that on either side of the phrourion there are two U-shaped towers, and at the corners horseshoe-shaped towers (type Ib).

At Tropaeum, the north half of the west side is straight, with a rectangular phrourion in the middle of the side, but with two U-shaped towers (Ic) on either side and only one horseshoe-shaped tower (Ib) in the northwest corner. At the southern end, where the gate is, the towers are U-shaped and not horseshoe-shaped.

We must bear in mind that at Tropaeum Traiani, there was a phase of construction for the west precinct wall, earlier than the Constantinian epoch. We can infer a period under the Tetrarchy, when the front of the fortress had a form similar to those at Troesmis East and Capidava. The fortress was restored and probably extended towards the south, for we observe that in the central part of the south-western area no late 3rd and early 4th century levels were found. The west side remained unchanged except in the southern part, where the west gate was added. On this basis, and bearing in mind the stratigraphy of the central area we can postulate a first phase at the beginning of the Tetrarchy (284-295) or earlier, under Aurelian or Probus. In the second phase the fort was extended southwards at the end of the Tetrarchy or at the beginning of the reign of Licinius and Constantine. To this second stage belong the towers which were abandoned uncompleted. The third stage, under Constantine I, was actually started but not completed by 316.

At (L)Ibida, the large fortress (II) has a south-eastern side which resembles the fronts of Troesmis East and Capidava, which would also support its dating to the 4th century. Moreover, half of the eastern side is identical with the front (south-eastern) side.

The smaller fortress (I) at (L)Ibida has the south-eastern side visibly similar to those at Capidava and Troesmis East, but with some modifications due to later restorations which made this front of fortress I not straight at the northern end. In spite of these deviations from the initial straight line, the analogies in form, location and spacing of the towers cannot be denied.

The plan of the south-eastern side forms another argument in favour of dating the fort to the Tetrarchy and to the early 4th century. We will not discuss here the relationship between the two fortifications: perhaps the smaller fortress (I) was built under the Tetrarchy and the larger one (II) under Constantine I and his successors.

Among the other fortresses along the Lower Danube, a precinct wall with a phrourion can be seen on the north-western side of Ulmetum. This wall is fairly straight with horseshoe-shaped towers (Ib and Ic) at the corners, a big rectangular tower not exactly in the middle of this side and with two U-shaped towers (Ic) displaced by the gate and both placed to the right of the phrourion. It is the only fortress with a phrourion (except those already discussed), erected in the 6th century and the typology of its walls does not reflect a survival of 4th century military architecture.

Starting from Troesmis East, which may have been built at the beginning of the Tetrarchy, when the legio II Herculia was stationed there, we consider that the analogies of the front side with those at Capidava, Iatrus, Tropaeum and Libida confirm the construction of these fortifications at the period. This is confirmed by the stratigraphy.

We therefore have a picture of the military architecture and topography of the fourth-century fortifications and of the defensive strategy used on the Lower Danube limes. These defensive conceptions continue to have force until the great period of reconstruction under Anastasius and Justinian.

* * * *

In all these fortified settlements there is evidence of a process of urbanisation, both in the inscriptions and in the topography of the interiors of the forts as revealed by archaeological excavations. From this topographical point of view, we notice differences in the degree of urban development between one fortress and another, and from one area to another, differences which are most evident on the right bank of the Danube and in the urban centres in the interior of the Dobruja.

The first criterion we can take into consideration is that of the area covered by a settlement, and of the character, shape and dimensions of the occupied area. Thus we may remark on the Danube the great urban areas at Troesmis (with two fortresses and an extensive extramural urban area, defended by earth ramparts), Noviodunum (a large fortress with an urban area enclosed by earth banks and ditches), Sucidava-Celei (citadel and fortified walled town down to the 5th century), Sacidava (fortress and civilian settlement with earth ramparts), and Oescus and Novae. As we would expect, urban development reached a higher level in the forts in the interior, because of the greater security and more favourable economic conditions. The biggest urban centre on the entire Lower Danube is (L)Ibida, with its large area of 24 ha defended by stone fortifications and a strong fortress on a neighbouring hill, which together form a single unit. Then follow Tropaeum Traiani, Abrittus and Nicopolis ad Istrum.

The second criterion we can use is the topography of the interior of the fortress, for this we have only data for Troesmis East (if Baudry's plan is to be believed), Tropaeum and Dinogetia. We do not have any information at all regarding the most extensive urban area, (L)Ibida.

Tropaeum Traiani, judging from the organisation of the interior with its official and private districts, its street system (the colonnaded via principalis) the great number of the Christian basilicas, big private buildings with proper heating systems, etc., has a civilian and urban character which is more pronounced than its military and administrative features. In contrast, the latter are more evident at Troesmis East.

(L)Ibida is an exception, with its big urban and civilian administrative area in the river valley, a defensive military centre in the citadel on the adjacent hill. The fortifications unify into a single whole the civilian and military characters,

which remain separate but remain mutually interdependent.

As to the other small or middle-sized fortresses on the limes, the organisation of Dinogetia, with its official buildings, big private houses and areas of modest dwellings, seems to be characteristic.

* * *

The earth ramparts and ditches, representing ample fortifications for the defence of extensive urban areas at Noviodunum, Troesmis and Sacidava, do not represent a local solution to the defensive problems of Scythia in the 4th to 7th centuries. They are a general phenomenon, seen for example in Britain,¹⁴ and were used from the 2nd to the 6th centuries on the Scythian limes.

These earth-works demonstrate that on the so-called frontier there was a vital force of urban development in the late Roman period. They show that the towns could not be restricted within the narrow limits of the stone-walled fortresses, but extended outside, defended by earth ramparts and deep ditches, and perhaps also by wooden palisades.

As well as at Troesmis, Noviodunum and Sacidava, the same process, perhaps more intensively and durably, took place at (L)Ibida. Here the urban area extending from near the military fortification, by its sheer size and population caused from the 4th century on the erection of very strong stone walls with towers, the same as those of the citadel and unified with them into a single defensive whole.

The earth-works also confirm our general knowledge of the difficult nature of the times, which did not permit the construction of large precinct walls around the newly developed urban areas. We must not forget those late buildings, dating from the 4th and the 6th centuries, erected near but outside the precinct walls of Tropaeum, near the eastern and the southern ones, or those discovered by Tocilescu outside the western side of the fort. The extra-mural thermae at Dinogetia reflect the same process. However, in a few cases the newly occupied areas were surrounded with strong stone walls, as at (L)Ibida.

B THE CHRONOLOGY OF THE ROMAN FORTS.

THE BARBARIAN INVASIONS AND THE MAIN PERIODS IN THE HISTORY OF THE LOWER DANUBE

Although the general features seen at Sacidava are not always discernible in the other fortifications, or are not found in the same succession or chronological framework, nevertheless every level at Sacidava can be paralleled in two or three fortresses.

Thus, L. IX at Sacidava has its parallels at Dinogetia, Capidava, Histria, Tomis and Argamum; L. VIII at Dinogetia, Histria, Tomis and Argamum; L. VII at Dinogetia, Histria, Tomis, Sucidava and Tropaeum; L. VI at Dinogetia, Histria, Tomis, Argamum and Tropaeum; L. V at Tomis and Argamum; L. IV₂ at Dinogetia, Histria, Tomis, Argamum, Tropaeum and Sucidava; L. IV at Histria, Tomis and Sucidava; L. III at Dinogetia, Histria, Argamum, Ulmetum, Tropaeum, Sucidava and Iatrus; L. II at Dinogetia, Histria, Argamum, Ulmetum and Iatrus; L. I at Histria, Argamum, Ulmetum and Tropaeum; L. I₂ at Histria and Tropaeum (see the synopsis, Table I).

The most complete and closest parallels are offered by Histria, Dinogetia (which has been much more extensively excavated), Tomis and Iatrus. Sucidava (Celei) generally exhibits almost the same levels, but with a slight chronological difference of some 10 or 20 years. This is explicable in terms of the geographical area and the events that occurred there.

The late Roman period starts with Diocletian, that is after the great crisis of the 3rd century, especially characterised by the barbarian attacks and invasions in the middle of that century. We will therefore briefly discuss the events that took place and the way these are reflected in the stratigraphy of the Lower Danube forts.

The literary sources contain a wealth of information about the Gothic attacks in the 3rd century. The first invasion took place in 238,¹⁵ but the excidium Histriae probably took place not then but later. There followed the invasion of 242 which did not affect the limes in Scythia Minor.¹⁶ Another, probably Carpic, attack also affected Dobruja, in 246.¹⁷ For Dobruja, in fact, the beginning of the great barbarian invasions is in 248, when a coalition of barbarians invaded and pillaged Dobruja and Moesia, eventually besieging Marcianopolis.¹⁸

Between 249 and 251, a great invasion led by the Gothic King Kniva crossed the Danube in two columns. One went through Dobruja along the sea coast, while the second and stronger one passed to the west, attacking Novae, then Nicopolis ad Istrum, Philippopolis and Augusta Traiana. Philippopolis was taken and sacked. As the Goths returned there took place the battle of Abrittus (near Razgrad), where the Emperor Decius died in 251.¹⁹ The new Emperor Gallus was forced to allow the barbarians to cross the river. However, in the time of Decius hoards were not buried in Dobruja but only in the middle of Moesia Inferior.

In the year 253 a new invasion ravaged these regions up to the sea.²⁰ At this time there took place the burials of hoards in Dobruja, which leads some archaeologists to believe that the destruction of Histria occurred then.²¹

A new attack occurred in the year 258. Two columns swept through, one by sea and the other along the west coast of the Black Sea. The fortresses of Histria, Tomis and Callatis were bypassed, but instead the towns of Bithynia were ravaged.²² Zosimus says that the barbarians sailed southwards, leaving on their right hand Histria and Tomis, this being for some historians evidence that in 258 Histria still existed and had not yet been destroyed. We believe it to argue the opposite, that Histria did not attract their attention in 259 because it had recently been destroyed, and that the mention of its name by the ancient source does not necessarily mean that Histria survived as an unconquered fortress as late as 258, but only that it was a landmark on the invaders' route. Histria, even destroyed, could have been a very notable landmark. This may mean that in 258-59, Callatis, Dionysopolis, Odessos, Mesembria and Apollonia no longer existed. The column descending through Scythia Minor was defeated by the Emperor Aurelian.

Other invasions in 263, 264 and 266, were directed by sea towards Asia Minor, without touching Scythia Minor.

In 267 there took place a new and violent invasion from the sea, that of the Goths and Heruli. They entered the mouth of the Danube and caused extensive damage in the north of Dobruja.²³ Some consider that the total destruction of Histria (excidium Histriae),²⁴ took place at this time, but it is more certain that Aegyssus, Noviodunum and maybe even Dinogetia were sacked and burned. A hoard was buried near Noviodunum in 267 (cf. C. Preda, G. Simion, Peuce II, 137). After that the fortresses along the coasts of Asia Minor, the Aegean Sea, and even in continental Greece were attacked.

A massive invasion, also by sea, though we cannot exclude another column on land, took place in 269. It was a great migration of Goths, Heruli, Gepidi, Bastarni and Sarmati (numbering 320,000 men according to Zosimus).²⁵ This time Tomis was attacked and set on fire, but it resisted and the invaders then turned towards Marcianopolis, Byzantium, Cyzicus and so on, without conquering a single town.

Having enumerated all the attacks and invasions between 238 and 269, as far as they are mentioned in the literary sources, we at once see that many of them did not have as their target the fortresses and towns of Dobruja, but passed by them on the sea and sometimes on land too. Even when the attacks were directed against fortified centres in Scythia Minor or Moesia Superior, they did not always succeed in conquering or destroying them, many towns successfully resisting the barbarian onslaught. This was the case with Marcianopolis in the year 248, Novae in 249-251, and Tomis in 259. Though the rural settlements were at the invader's mercy, even the greatest attacks could not always succeed in taking a well-fortified and defended fortress. Only the fortresses of Greece, caught unprepared, were easily overrun and sacked.

To conclude, of the invasions that crossed Dobruja in the 3rd century, we believe that only those of 248, 249-251, 253 and 267 need to be taken into

consideration. These are the great barbarian waves which left their traces, burning and destruction, in the fortifications of Scythia Minor in the middle of the 3rd century. The stratigraphical evidence and that of numismatics and epigraphy, can help us to establish the extent and seriousness of the damage caused to each fortress by these attacks, although some sites were very probably struck in turn by all four or five incursions.²⁶ Of course, the fortresses which were set on fire, even if not overrun and destroyed, suffered different degrees of destruction (Marcianopolis in 248, Novae in 249-251, Noviodunum and Dinogetia in 267, Tomis in 269, Sacidava and Histria in 251-253, etc.).

It is important to correlate the archaeological and literary evidence with that of numismatics, the circulation of coinage and the distribution of hoards serving to clarify aspects of the general historical picture. A comprehensive account of the circulation of coinage in Roman Dobruja has yet to be undertaken, so we will use the evidence from various fortresses.

A hoard buried in 246 at Canlia led to the view that the attacks of the Carpi against Dacia in the time of Philip the Arabian extended also against Scythia Minor, Histria suffering too.²⁷ But we cannot concur with this view, based as it is on a single hoard from near the southern limes of Dobruja which is not supported by the stratigraphy or coin finds from these levels of the Scythian limes fortresses. It is possible that a local attack, an isolated incursion, may have crossed the Danube, though only for a short distance, south of Sucidava (Izvoarele).

As we saw at Sacidava, there is an interruption in the coin series between 251-267, and at Histria between 251-253. Hoards were buried at this time at Camena, near Histria (the latest coin dating from 253), at Saragea (253),²⁸ at Callatis (hoards dating from 258),²⁹ at Noviodunum and at Suluc-Tulcea (267).³⁰

These coin finds confirm the gravity of the events in 251-253 for Scythia Minor in general, but especially for the central and southern parts of the province, both on the coast and along the Danube. At the same time they confirm the invasions of 258 (affecting also the south-eastern part of Dobruja) and 267 (ravaging the north of Dobruja). Discussions of the events of the middle of the 3rd century have been carried on for a long time and the subject is still controversial, especially concerning the excidium Histriae.³¹

These barbarian attacks and the resulting destruction are revealed by archaeological excavations carried out at Sacidava, Histria, Dinogetia, Tomis and less probably Capidava (see the respective sections above). But at Capidava we have no clear evidence of burning or destruction of the fortress in the 3rd century. At Tomis, the traces of burning in the middle of the 3rd century are slight and in some areas non-existent, but they are very clear in the next level, that dating from the end of the century.

The data therefore indicates that attacks came in successive waves, and although we cannot exactly specify the year or years in which these events took place at a specific fortress, between 251 and 267 the whole of Roman Dobruja and the entire Lower Danube limes were devastated. Within this period, the years 251-253 stand out as the most difficult for the local population and for Roman civilisation in Scythia Minor.

It is certainly the case that other barbarian incursions lacked the power to destroy and sack the fortifications, but were able only to ravage the

unfortified rural settlements. This does exclude there being any similarity between the stratigraphy of the unfortified rural settlements and that of the fortified settlements, especially the fortress with military garrisons on the limes. This conclusion is supported by the stratigraphy of the extra-mural settlements outside the fortresses, which differs primarily in the number of burnings (e.g. at Capidava, Ulmetum, Dinogetia, Callatis) from the intra-mural stratigraphy.

* * * * *

After the barbarian attacks in the middle of the 3rd century, life was restored in settlements and fortifications and in the province generally, as is reflected by the stratigraphy (L. VII at Sacidava, L. VIII at Histria, L. IV at Tomis) and by the coin series, which recommences under the Emperor Claudius II and continues under Aurelian and Probus.³² Restorations of the fortifications under Aurelian are proved on the Lower Danube, firstly at Sacidava,³³ but also in Scythia Minor, at Histria (under Aurelian, but especially under Probus) and probably at Tomis and Callatis.³⁴

At Sacidava, the coins set the limits of the period to 268 and 295 and at Histria between Aurelian and 295. The end of this period is marked by other invasions on the Lower Danube, between 280-295 (Bastarni, Carpi, Sarmati, Goths), but the victory of Diocletian and Galerius in 295 established peace in this area.³⁵ A lot of inscriptions refer to the Roman victory and the beginning of the restoration,³⁶ and so many authors set the culmination of the barbarian attacks in 295.³⁷ The violent events of 295 are reflected in the stratigraphy at Sacidava, Dinogetia, Histria, Beroe, Capidava, Tomis, Tropeum Traiani, Hisar and Iatrus.

There is a spectacular expansion in coin circulation in 295-296. At Histria the coins of these years represent 43% of the total for the period 284-306.³⁸ The year 295 is also confirmed by hoards (Constanța and Piatra Frecăței-Beroe).³⁹

In the year 295 (Diocletian), the restoration and general work of construction started on the Lower Danube, the most convincing stratigraphic evidence being L. VII at Sacidava, L. VII at Histria, L. III at Tomis. We can also give many examples of fortifications newly built (Dinogetia, Istrus) or completely rebuilt (Sacidava and the quadriburgia) under Diocletian.

As regards the numismatic evidence from the levels of the period, the end comes in 313 at Sacidava (the first coin on the next level dating from 351), in 324 for Histria (the first coin on the next level dating from 378),⁴⁰ in 324 at Iatrus, and at Tomis the end of the period is probably contemporary with the end of the reign of Constantine I. At Histria in area ER, the last level (IV) is shown by the coins to have continued until 337-340, when the area was abandoned and became a cemetery.⁴¹ We can add to this evidence of

stratified coin-finds that of various hoards, whose burial has no connection with the events of 295 or 376-378, but with those of the first half of the 4th century.⁴²

Correlating all the above data with the information available from the literary sources, we conclude that a new period of confusion brought about by barbarian incursions occurred between 315 and 332. Invasions of Goths and Carpi south of the Danube occurred in 315-316, in 323-324 and in 331-332, but there is little reliable information as to the territory invaded, it being probable that the invasion of 331-332 also affected Scythia.⁴³

In the places attacked in 315-332, restoration started immediately, everyday life continuing up to the end of the 4th century, when new invasions are mentioned in the literary sources and are confirmed by stratigraphy and numismatic evidence.

The Goths renewed their incursions southwards on the Lower Danube, starting in 364.⁴⁴ The situation deteriorated in September 365 when the usurper Procopius proclaimed himself Emperor, claiming Constantinople and the diocese of Thracia and asking help from the Goths, who sent him a big army.⁴⁵ But Procopius was defeated and killed by the Emperor Valens in May 366, who then unleashed terrible reprisals against the local population whom he suspected of having supported Procopius, especially in Thracia where the usurper had started his rebellion.⁴⁶

Then, between 367 and 369, Valens organised three big expeditions against the Goths, pushing north of the Danube and passing with his army, in his third campaign, through Noviodunum.⁴⁷ These actions took place north of the Danube under Valens and coincided with a great activity in reconstructing and strengthening the limes on the Lower Danube.⁴⁸ But in 376 the great Visigothic invasion started south of the Danube, when they ravaged Scythia Minor and Thracia from 377.⁴⁹ A great battle was fought at Salices in the north-east of Dobruja, but later, in the battle at Adrianople in August 378, the Romans were disastrously defeated and the Emperor was killed.⁵⁰

New attacks were launched in 384-385 and 385-386, when the fortress of Halmyris was sacked.⁵¹

At Sacidava, as is proved by the stratigraphy and the coins of the Vth level, life continued without interruption from the time of Constantius II to 383-386. In Domus I (p. 85 above), the Vth level contained as well as lamps and pottery, a hoard of 15 coins: 2 coins dating from 341-346, four from 348-361, eight from the reign of Valens (364-375), and the latest minted after 378, in the reign of Gratian in 383. In S. VIII, level V, the latest coin dated from 378-383, level V belongs to the second half of the 4th century, a period which ended violently in an intense conflagration. This event did not however take place at the end of Valens' reign, but rather later at the end of the century under Theodosius I, when the disturbed nature of the time is reflected in the hoards.⁵²

At Histria, in the central sector, this period is not clear in the sense that level VII finishes with coins of 324, while the next level (VI) starts with coins of 383-395, and in sector ER the last level finishes with a coin of Constantius II (337-340).⁵³ The whole period from Constantius II to Theodosius I is characterised at Histria, as elsewhere, by the reduced numbers of coins in circulation.⁵⁴

For example only one coin of the usurper Procopius (365-366) has been found at Histria.⁵⁵

In the present state of knowledge, we believe that we cannot be sure that Histria was attacked or destroyed under Valens, although the fortress did not escape the upheavals of the second half of the 4th century. At the same time we note a reduced number of coins in circulation between 376 and 378, a fact that can be explained by the precarious general situation of Dobruja without necessarily postulating a Gothic attack. However, the circulation of coins becomes restricted between 379 and 386, when the precinct wall of Histria seems to have been rebuilt, or at least repaired, after the year 383, as is shown by two coins issued in that year and discovered in the emplecton of a bastion of the main gate.⁵⁶

In this case, the earliest coin from the VIth level from the central sector (a coin of Theodosius I, 383-395), is proof of a reconstruction started under Theodosius I. This reconstruction was rendered necessary by the destruction, perhaps only partial, caused by the events of 377-378, or those of 383, or possibly even those of 364-366 (the coin of Procopius may be significant here).

Serious disturbances under Theodosius I are confirmed by two hoards, one from Medgidia (latest coin dating from 383), and the other from Strunga (see note 52).

Thus the year 383 (Sacidava; Domus; Histria, central area; Histria, the precinct wall; the hoards from Medgidia and Strunga) must be regarded as a turning point, a time of sudden change, and at least for some fortresses as the final moment of one period and the beginning of another. If we attempt to bring all these dates together, we arrive at the following chronological landmarks as a working hypothesis: Argamum—364-378; Histria—378-383; Tomis—377-383; Philippopolis—366; Hisar—378; Capidava—377-383; Sacidava—383; Medgidia—383; Strunga (near Altinum)—383; Iatrus—376; Tropaeum—378?; Dinogetia and Halmyris—386.

We can thus define, as a working hypothesis, three large areas each with its chronology: a) the Moesio-Thracian area between 366 and 378 (Philippopolis, Hisar, Iatrus, Sucidava); b) the southern half of Scythia, especially the southwestern quarter, around the year 383 (Sacidava, Medgidia, Tropaeum, Strunga near Altinum, Capidava, and also Histria and Tomis); c) the northern area of Scythia, in 386 (Halmyris, Dinogetia). Taking into consideration the lack of stratigraphic data and the actions of Valens, it seems that Noviodunum did not suffer destruction until the reign of Theodosius I. Unfortunately, we must conclude that the events of the second half of the 4th century (364-386) are not yet clear while affirming our opinion that there were more barbarian incursions into Scythia, the exact dates of which we do not know, nor do we know the precise effects on each fortress.

The period beginning with the sudden change started by Theodosius I, lasts until the Hunnic invasion. The date of the Hunnic destruction in any one fortress is difficult to determine, but two areas can be isolated in the present stage of discoveries. There is an area on the Danube, to the west, where the Hunnic attacks occurred earlier (Sucidava and Iatrus), and there is the Lower Danube area, that is to say Scythia, where the disaster occurred somewhat later (Sacidava, Capidava, Histria, Tomis and Argamum).

A very important result of the recent excavations is the proof by stratigraphy and coin finds of continuity of occupation in the 5th century, in spite of the misfortunes and interruptions produced by the Huns. If from an economic and town-planning point of view one can clearly see a marked deterioration, life carries on at a modest level and no gap is observed in the stratigraphy. After one or more fires and destructions, the levels are restored in a very short time with the same ethnic features and using the same techniques as in the earlier restorations.

The literature, together with other sources of information, proves that in the first half of the 5th century and especially in the second quarter of that century, the most destructive invasions of the Huns took place in Thracia and Scythia.⁵⁷

Theodosius II bought peace with a very large tribute, but, in 434, after one incursion after another, the Huns invaded the territory as far as Constantinople, thus obtaining higher payments. Dobruja suffered constant attacks and looting, as is shown by the action of Theodosius and the "Scythian" bishop of Tomis and Scythia in offering the Huns placatory gifts.⁵⁸ We also find that in 434 the fortress of Karsos in Thrace (Carsium) was held by the Huns.⁵⁹

New invasions followed, and in 449 a new treaty was concluded between Attila and Theodosius II, and the Huns agreed to leave the South Danubian territories, their attention and greed now being directed to the west. The Eastern Empire continued to pay tribute until the time of the Emperor Marcian (450-457) who revoked these obligations, after which he defeated an army sent by Attila. The latter, leading the main body of the army westwards, was eventually stopped in the battle of the Catalaunian Plain (451). After the death of Attila in 453, the Hunnic power gradually diminished, a part of them remaining in Pannonia and others leaving for the north coast of the Black Sea, and a part being settled in the Empire by Marcian as foederati. This was the case with Harnac, the son of Attila, who led a group of Huns who settled in the north-eastern part of Dobruja "in extrema Minoris Scythiae".⁶⁰ However, Hunnic invasions still came from the north of the Danube, one in the reign of Leo I (457-474), and in one of the battles in the diocese of Thrace, Dengizik, another son of Attila, died.⁶¹

After the decline and disintegration of the Hunnic power, a new danger appeared on the frontiers of the Empire, this time from Germanic peoples. Many Visigoths (Gothi minores) remained in Moesia Inferior, around the town of Nicopolis ad Istrum.⁶² An earlier treaty concluded by Marcian with the Ostrogoths, was not respected by Leo I and this became the cause of new wars. Between 471 and 488 new attacks by the Ostrogoths took place, Theodoric having for a while his residence at Novae.⁶³ At the same time, in 480,

on the Lower Danube frontier, the Bulgarian tribes appeared, called into the Empire by Zeno (476-491) in order to fight the Goths.

The literary sources clearly reveal the disturbed picture, with many attacks, invasions and barbarian movements in the entire diocese of Thrace and in the province of Scythia. The most violent Hunnic invasions and the Gothic incursions are concentrated between 434 and 449 and they are followed by the Gothic-Bulgarian invasions between 471-488. In these two events we believe we can see the origins of the two great conflagrations and two main periods of destruction in the 5th century for which the excavations in the fortresses have provided evidence. The stratigraphy and the numismatic evidence confirm these two phases of great confusion and destruction by fire of the occupation levels.

The excavations at Sacidava demonstrated the existence of two main levels in the 5th century. The first one belonged to the period of Theodosius II down to the middle of the century, when the big Hunnic invasion arrived. The second level revealed buildings and clay floors of an inferior quality.⁶⁴ At Histria no coin was found to date this level surely, although coins of Marcianus, 450-457, would naturally belong to the Vth level, but the fact that it cannot be later than the beginning of the 6th century, and also not before the middle of the 5th century (according to the latest coins from L. VI), confines its dating to the second half of the 5th century. Level V is heavily burned. Level VI has the same buildings of a modest character, sometimes with stone pavements. The coins, dating from 383-395 and 420-450, fix the date of level VI to the first half of the 5th century. Level VI was also heavily burned. Therefore at Histria, in the central sector, heavy conflagrations are recorded in the middle of the 5th century (450) and again at the end of the century, probably towards the end of Zeno's reign.

Not many years ago bronze coins from this period were unknown in Dobruja, but the recent discovery of issues of Marcianus and Leo⁶⁵ shows more and more clearly that the idea of a hiatus in the occupation in the second half of the century is artificial. This is a reason for hoping to see these hoards published. The first of these was discovered on the big mosaic at Tomis, and the second came from Saraiu. The great quantity of coins of the 5th century discovered at Izvoarele (at Pîrjoaia, the ancient Sucidava), with a coin series continuing without interruption down to Anastasius, proves beyond doubt a continuity of occupation in the 5th century, at least in some fortresses on the limes.⁶⁶

The excavations at Dolojman also confirm the observations made at Sacidava in connection with the general levels. We notice that under the 6th century basilica (discovered by P. Nicorescu) there was another earlier basilica which was dated with certainty to the 5th century.⁶⁷ At Dinogetia, as far back as 1953, a level belonging to the 5th century was recorded.⁶⁸ At Tropaeum some coin finds in "area C", in our excavations, were very interesting: one of 383-402, one of 395-408 and one of Theodosius II (402-450). At Tropaeum, 5th-century levels were discovered in the area near the Eastern Gate.⁶⁹ We may add the discoveries made in the excavations carried out in 1971 in Constanța, where two levels belonging to the 5th century were revealed. On the lower level, the last coins dated from 392 and 402,

which dates the second level (from top to bottom) to the beginning of the 5th century, so that the first (topmost) level may continue into the 5th century.

Of course, the discoveries made at Sacidava, Izvoarele, Dinogetia, Dolojman, Histria and Tomis, must not be generalised and applied to the whole limes, or to the entire Dobruja. It may well be that, in some places, future excavations will reveal an interruption of a greater or lesser duration attributable to the catastrophic destruction caused by the Hunnic invasions.

The coin series, notably those from level IV₂ at Sacidava and V at Histria, place the Hunnic destruction towards the middle of the 5th century, and therefore within the limits mentioned above (434-449). There is no coin evidence for the date of the second destruction except for a buried hoard from Mircea Vodă, dating from the reign of the Emperor Leo and probably towards the end of the reign, between 471 and 474, if not after 474.⁷⁰ It was at the end of the second and last 5th-century level that the second destruction and burning took place. At the end of the 5th century, even as between one fortress and another, one can detect some small differences between 471 and 488. The fact that this level and the next 5th-century period, which starts with the reign of Anastasius and continues, as is proved the case elsewhere, through the reigns of Justin I and Justinian, was established by the discovery of bricks with the stamp of this Emperor at Sacidava (in L. III), Dinogetia and Histria, where an inscription on a ceramic plaque was discovered.⁷¹ At least in these fortifications the restoration of the precinct walls after the destruction of the 5th century was started at the beginning of the reign of Anastasius. It must also be remembered that the period of reconstruction started in the reign of Anastasius at Tomis, Tropaeum, Callatis and so on. The fact that the coins of this Emperor are rarer and sometimes are absent from the respective levels is explained by numismatists as a general phenomenon and not as one special to Scythia Minor.

For the western sector of the Lower Danube limes, the data is somewhat different. At Sucidava, five hoards containing coins of 408-423 lead to the conclusion that the crushing attack of the Huns took place at this time, either in 408-409 or in 424-427, being delivered by the Huns led by Uldis.⁷² Against this opinion, D. Tudor opposes the argument that the invasion of Uldis swept through, south of the Danube, at Castra Martis, so that Sucidava was instead destroyed in the course of Attila's attack in 447.⁷³

The excavators at Iatrus have come to the conclusion, based on their excavations and coin finds, that the great Hunnic disaster occurred in the years 423-424.⁷⁴

So as we said above, in that part of the limes situated between Porțile de Fier (Iron Gates) and Dobruja, the destruction of the fortresses (Castra Martis, Sucidava and Iatrus) took place earlier than in the Scythian sector.

* * * * *

In considering the final phase of Roman history on the Lower Danube, we first emphasize the value of the observations made in recent years at

Histria, Sacidava, Tropaeum, Arganum and Iatrus. These have proved the existence of three 6th-century levels, which completely confirms the observations and conclusions of V. Pârvan at Ulmetum.

The first period of the 6th century starts, as we have said, with the reign of Anastasius (491-518), extending through the reigns of Justin I and Justinian, down to the middle of the century.

The Bulgarian incursions into Thracia in 493, 499 and 502 did not leave archaeological traces in Dobruja, the Danube crossing probably being made somewhere in the west of the Inferior Danube limes.⁷⁵

During Vitalian's revolt, from 513 to 518, fighting took place in the south of the Balkan peninsula, at Galiacra and especially at Constantinople.⁷⁶ Scythia, of which Vitalian was probably a native, did not suffer, perhaps because the towns and fortresses here deserted his colours or kept a benevolent neutrality. It is also possible that the troops of Vitalian (foederati) had some influence, or were even quartered in some of the limes fortifications.

We also have no literary or archaeological information on the Antzi invasion (Slav tribes) that took place under Justin I in 517, these barbarians being defeated by Germanus.⁷⁷

The attacks continued under Justinian, in 528, 529 and 533 (Bulgarians, Huns, Slavini, Antzi). A major invasion, when the Bulgarians attacked the Roman fortifications for the first time, took place in 540 through Thrace and Macedonia, right up to the outskirts of Constantinople.⁷⁸ Yet the fortifications of Dobruja remained untouched, the passage of the Danube probably being made to the west, since at Iatrus we note a destruction and burning after 530.

In 544, the Antzi attacked Thrace and the Bulgarians Illyria.⁷⁹ We see from the literary sources that the barbarian attacks of the first half of the 6th century did not have Scythia as their objective, their usual direction of invasion being Thrace, Illyria and south towards Constantinople. The Danube was crossed west of Durostorum. Our hypothesis takes into consideration the main body of the barbarian troops and the main directions of their attacks. Incursions and pillages still took place in the Dobruja, but these were not so destructive, the victims being the rural population.

The worst invasion of Scythia Minor was in 559 and was led by Zabergan, leader of the Kutriguri (a branch of the Huns) allied with the Bulgarians and Slavs. They had crossed the Danube in Scythia Minor and Moesia, advancing into Thrace, Macedonia and Greece.⁸⁰ General Belisarius defeated them under the walls of Constantinople, the barbarians nevertheless continuing to pillage the peninsula until August 559, when they demanded peace. A last invasion of the Huns and Bulgarians of short duration, took place in 562, and we have no indication as to the damage suffered by the Scythian limes, except a hoard from Topalu buried in 562-563.⁸¹

The invasion of 559 succeeded in destroying and burning some fortifications in Dobruja. At Dinogetia, the major layer of burning dating from the middle of the 6th century is the result of the attack of 559, because the latest coins date from the years 557-558, no coins of Justinian mentioned after this date being discovered.⁸² At Sacidava, the violent burning of the IIIrd level took

place between 550 and 562, the last coins in L. III dating from 550, and the earliest one from L. II dating from 562. At Tropaeum, area C, the level is interrupted at the end of Justinian's reign, before 571-572 (see the chapter on Stratigraphy).

At Histria, L. IV was heavily burned and the latest coins dated from 543-544 and L. III begins with coins of 565-566. We should also mention here the hoard from Satu-Nou, deposited in the reign of Justinian.⁸³

Another danger now approached the Lower Danube; the Avars, led by Baian, who in 561-562 demanded land in Scythia Minor, but due to the diplomacy and military manoeuvres of Justinus "quaestor Justiniani exercitus" on the Danube, the Avars did not cross the limes into Scythia.⁸⁴

* * * * *

The next period in the 6th century in Dobruja lasts through the reigns of Justin II (565-578), Tiberius II Constantine (578-582) and Maurice Tiberius (582-602). In this time the Lower Danubian limes were more and more heavily assailed.

In 566 the Avars crossed the Scythian Danube in a quick raid, without repercussions for Dobruja. After 567 they remained masters of Pannonia, from whence they organised incursions into Thrace in 570 and 573. In 573 the Avars took the route Singidunum-Novae-Durostorum, from whence they again crossed the Danube against the Slavs.⁸⁵ After taking the city of Sirmium in 582, where Baian fixed his residence, they made attacks on the other provinces neighbouring the Danube.⁸⁶ However, these barbarian incursions were not so threatening for the Dobrujan limes fortifications, the great quantities of coins of Justin II forming proof of a peaceful and quiet period.

In 580-584, a massive body of Slavs crossed the Danube moving southwards, where they pillaged for four years, settling temporarily in the Imperial territory, without affecting Scythia Minor.⁸⁷

In this second part of the century the invasion with the worst repercussions as is clearly proved to have been the case in the Dobruja too, was that of 586-587 by the Avars and Slavs. According to Theophylactus Simocatta, Scythia and Moesia Secunda suffered most, where the Avars took many cities: Ratiaria, Bononia, Dorostolos, Zaldappa, Panassa, Marcianopolis and Tropaeum.⁸⁸

As excavations and the numismatic and stratigraphic evidence have shown from the time of V. Pârvan up to the present day, the fortress of Tropaeum suffered a disaster in 587-588, and very probably the fortress at Durostorum-Sucidava (Izvoarele) was also taken, one of the latest coins found here dating from 584-585.⁸⁹ But on the western Black Sea coast, north of Dobruja and on the Scythian limes, the disaster of 586-587 is not detectable, life continuing without interruption until the end of Maurice's reign.

In Histria, central sector, L. III continues without interruption at least throughout the period 565-566 to 592-593. The stages of decline at Histria have been discussed many times, but the accumulation of data indicates

increasingly clearly that Histria was not destroyed in 586. Many clear arguments oblige us to prolong the duration of L. III, that is the first level of the 6th century, after 586. Among these arguments we notice the hoard of coins from the Temple sector dating from between Justin II and Maurice (600-601). The hoard (inventory No. 458/1954) discovered under a late wall, in L. II, ended in 588-89. The coins from a channel of the thermae, in L. II, end with one from 591-592.⁹⁰ The stratigraphic and numismatic evidence from the IIIrd earth rampart also clearly dates from after 585-587.⁹¹ Sacidava too was not affected by this invasion, the latest coin from L. II dating from 599-600. At Dinogetia the level immediately after the fire of 559 lasted at least until 592.⁹² The same date seems to be confirmed at Argamum, Ulmetum and Beroe. At Tomis, the latest coins of Maurice date from 592-593 with one from 601-602.⁹³ At Iatrus, this stage lasts from 536 to 600-602. At Sucidava-Celei the latest issues of Maurice date from 596-597.⁹⁴ There have been cases when starting from a single discovery or the results obtained at a single site, conclusions have been drawn which have then been regarded as generally applicable and universally true, even at the cost of ignoring some inconvenient arguments, or selecting artificially from the body of facts and proofs available at a given moment.⁹⁵ The archaeological reality does not permit such generalizations and, we think, the data and the arguments require an open-minded approach and interpretation.

In fact, Th. Simocatta refers to the passage of the Avar-Slav invaders in 586-587 on the right bank of the Danube, from Ratiaria to Durostorum, Zaldapa, Marcianopolis and Tropaeum, the last also being the last city taken by the barbarians. This clear literary information,⁹⁶ correlated with the stratigraphic and numismatic data for the Scythian limes, at the north and along the Dobrujan Black Sea coast (areas not affected by the attack), show that the great invasion of 586-587 ravaged the south-western and southern Dobruja.⁹⁷ Tropaeum was destroyed in a single attack. The rural areas south of Dobruja had also been pillaged, of course.

The latest manifestations of Imperial authority on the Danubian frontier are due to the Emperor Maurice Tiberius, who after the conclusion of peace with the Persians in 591, began a long war with the Avars and Slavini, between 592 and 602.⁹⁸

As we find from the descriptions of military actions given by Simocatta⁹⁹ and Theophanes,¹⁰⁰ this war was generally favourable to the Romans, having an offensive character, with many of the battles fought north of the Danube. A first action in the mountain campaign, in 592, passed through Dorostolon, and was led by the general Priscus, a man of great ability, against Ardagast, the chief of the Slavini, after an agreement had been reached by the Roman general with the Avars. The second campaign against the Slavini took place in 593, and was also led by Priscus. In 596, the army, commanded now by the Emperor's brother Petrus, passed through Zaldapa, then Istrus, Novae and Asemos. It then crossed the Danube against Piragast. Finally Petrus was obliged to return. This campaign led to the burial of the hoard at Socariciu (latest coin dating from 594-595), on the left bank of the Danube near Ostrov.¹⁰¹ Then Priscus once again led the Roman army, stopping first at Novae, then fighting with the Avars of Balan, near Singidunum. The Avars burned Tomea, in the vicinity of Remesiana, to whose help came

Priscus (599). The hoard from Movileni, hidden in 599, may reflect these events.¹⁰² In 600 a peace was concluded with the Avars in exchange for large payments, but in 601 a new Roman expedition started against them in the area of Singidunum-Viminacium and arrived on the far side of the Tisa. In 601, Petrus was appointed as strategos of Thrace in the place of Priscus. After a series of successes, the order of the Emperor to the army to remain north of the Danube, during the winter, caused a great revolt of the troops in 602, who proclaimed the centurion Phocas Emperor. This revolt extended to Constantinople.

We may note that during this war the fortresses on the limes (Durostolon, Novae, Iatrus, Asemos, Singidunum) were in the permanent possession of the Romans, and that the battles and expeditions took place especially to the north of the Danube and west of Thrace, outside Dobruja. This general picture offered to us by analysis of the literary sources, is confirmed by stratigraphy and coin finds. Where the coins of the period Justin II-Maurice continue until 592-593 or 599-600, the fortifications remained untouched by the war, or at least unconquered, until 602.

The burning dating from the end of this period (or level) can be related to the events of the year 602, when the Danube frontier remained undefended for a while during the revolt of Phocas. The situation is also reflected in the hoards buried at Histria¹⁰³ and in Bulgaria.¹⁰⁴

* * * *

After this disaster, Roman life restarted in almost all the fortresses.

Another general level was recorded at Sacidava, with coins of Heraclius (613). It ended with a fire, after which followed two other levels, distinct but poorer and with no traces of burning.

As was shown in the section on Sacidava's stratigraphy, the two post-Heraclian levels have a generally modest aspect, but all the same the houses still had good beaten clay floors and stone walls crudely bonded with clay. Another observation to which we must pay attention is that levels L. I2 and L. II were found in several different areas of the fortress, which again proves the continuity of Romano-Byzantine life throughout the fortresses, even if the population is less dense. At Histria, in the central part, occupation continued with two more levels, which were not burned. Tropaeum, after the fire and destruction of 586-587, continued with two more levels, containing constructions which showed no traces of fire. The first level after 587 could not have ended earlier than 602, so the next and last level must have lasted at least until the time of Heraclius. Ulmetum also continues after 602 and lasts until at least 615.

Although many opinions have been expressed in the literature, and although many new discoveries have enriched our knowledge of late Roman continuity in Dobruja and on the Lower Danube limes, the very interesting question of the dating of the last Roman, recognisably urban levels remains unanswered.

Our understanding of the character and chronology of these latest levels and consequently of the end of Roman authority on the Inferior Danubian limes, is still a matter for debate.

Between 602-610, under Phocas, disruptions were caused by the Slavs, who passed through in waves to settle in the Empire. Under Heraclius (610-641), when attacks by Avars and Slavs took place in 619 and 626, there was again serious disturbance, but it is difficult to specify exactly how the limes of the Lower Danube and Dobruja was affected.¹⁰⁵

The swift return of Imperial authority on the Lower Danube limes after 602 can be demonstrated by the monetary circulation. Coins of Phocas were found at Histria, Callatis, Tomis (10 coins), Noviodunum and Lazu (605-606). Also coins of Heraclius were discovered at Tomis (7 coins), at Histria (dating from 613-614), Callatis (628-629 and 630-631), Durostorum, Axiopolis, Noviodunum and even at Ulmetum (614-615). Coins of Heraclius and Heraclius Constantine (612-631) were found at Sinoe.¹⁰⁶ We must add here the lead seal with the portrait of Heraclius the elder from Tomis, the lead seals of various 7th-century Byzantine dignitaries discovered at Durostorum,¹⁰⁷ a 6th-7th century lead seal from Noviodunum, and the inscription of the 6th-7th century¹⁰⁸ from Lazu, the latest Latin inscription from Dobruja.

The analysis by A. Petre of the data and observations from the old excavations made in the business area, temple area, Domus, thermae, and the extramural area at Histria, produced clear arguments in favour of dating the IInd level at Histria as late as 600-602, and certainly later than 586-587.¹⁰⁹ The Ist level continued after 602, and was identified all over Histria.¹¹⁰

All the observations indicate the urban character of the last Histrian level, as shown by the remains of houses and of the streets still in use after 602.¹¹¹ Important repairs were noted to the precinct wall corresponding to this L.I, to towers D and E, to the stairs, and so on. Furthermore, the third earthen rampart outside the precinct wall, constructed after 602, was erected over a level (II) dated by coins of Phocas.¹¹² These observations indicate the survival of the urban, perhaps even fortified, character of Histria until 641.¹¹³ This is generally confirmed by the stratigraphy observed in the recent excavations in the central sector.

In fact, all these observations from the earlier excavations, reconsidered in the light of the recent excavations at the Main Gate, central sector, and thermae, confirm and complete the hypothesis stated in 1957 by Em. Condurachi¹¹⁴ that Histria was continuously occupied in the 7th century. In the first 10 years the occupation was urban in character, later it was less organized.

In Histria, the majority of the coins of Phocas and Heraclius were well stratified. The number and the distribution of the coins of Phocas over the entire area of the Roman fortress gives us a picture of life there at the beginning of the 7th century.¹¹⁵

The coins of Heraclius prove the continuity of occupation in the first decades of the 7th century, and they doubtless circulated for some years after they were minted. The presence at Sinoe¹¹⁶ of a coin of Heraclius

(613-614) is a valuable indication of continuity, and of the connexions between Histria and its surroundings at the beginning of the 7th century.

The final date of the final occupation of Histria is therefore either the first quarter of the 6th century, or more probably at the end of the reign of Heraclius. Continuity in the 7th century is also demonstrated by the cemetery at Piatra Frecaței (Beroe).¹¹⁷

On the basis of a coin of 586 and Theophilactus Simocatta's writings, V. Pârvan believed that the occupation of the fortress of Tropaeum ended at the end of the 6th century.¹¹⁸ This opinion is shared by present-day archaeologists. Recent coin finds and especially a coin of 490-591 led Gh. Poenaru Bordea to think, we believe with good reason, that the occupation at Tropaeum continued after the disaster of 586-587, very probably until 602.¹¹⁹ M. Sâmpetru has tried to apply the date of 586-587 to the entire Dobruja, after which he considers all the sites to have undergone urban reconstruction lasting until 614. In 614, urban life in Tropaeum¹²⁰ as well as in the other towns of Dobruja, came to an end.

At Histria, central area, the latest levels prolong the terminal date after 602, and indeed after 614 to 640, and maybe even later.

At Ulmetum, there are three burned levels. The lower level is shown by a coin dating from the second year of Maurice's reign to have been destroyed in 586. There are then two more levels with burning, extending the life of the fortress after 614. We may also add the observation of V. Pârvan on the closing of the northwestern gateway, a sure sign of the Romano-Byzantine character of the fortress.¹²¹ At Ulmetum, the last coin belongs to the reign of Heraclius (614-615).¹²²

Coins of 628-629 and 630-631 were found at Callatis. A coin of 629-630 is known from Tomis. It is also interesting to note the discovery made on the Black Sea coast, where besides gold coins there were bronze coins of Constans II and Constantine IV.¹²³

An important problem, but one difficult to solve, is that of the duration of the fortified Roman limes in the 7th century. At Sacidava, the defensive walls survived until the end of the Ist level, therefore under Heraclius. Histria retained its stone fortifications, adding also a large earth rampart. The fortifications probably survived where coins of Heraclius have been found: at Sacidava, Histria, Callatis, Durostorum, Axiopolis and Ulmetum. The late fortification, the so-called 'castle', at Capidava, is architecturally characteristic of the end of the 6th century, or rather after the attacks of 600-602.

The north of Dobruja seemed to present a special situation. At Dinogetia the latest coins date from 592 and at Noviodunum the latest issues are those of Phocas. However, the latest levels are disturbed or destroyed by medieval and modern activities, so that we only suggest as a hypothesis the possibility that the northern Scythian limes were abandoned earlier than the rest of the province.¹²⁴

The settlement of the Slavs, coming in many separate waves into the territory of the Empire, in the form of some groups referred to in the sources as slavini, is not evidence for the abandonment of the limes. The Slavs settled further to the south (Thrace, Macedonia, Peloponnesus), and are not

encountered on the Lower Danubian limes, neither in fortresses, nor in rural settlements. There is not a single trace of the Slavs in the 7th or 8th centuries. The old Roman fortifications were re-used once again in the early medieval period. There is much evidence that the fortifications on the limes were gradually deserted, with a progressive diminution of the intensity of occupation with no attacks from outside and no fires, as a result of the weakening and eventual cessation of Roman authority on the Danube, and the economic changes brought about by a new social system.

Recent excavations prove that, along the entire Lower Danubian limes and in Dobruja, after the supposed disappearance of the fortified limes at the end of the reign of Heraclius, the Romano-Byzantine life of the local population continued in its traditional forms down to the second half of the 7th century. We may also remember the views of N. Iorga on Romano-Byzantine survival down to 680.¹²⁵

We may hope that the archaeological excavations and coin finds in the future will bring more solid evidence about the end of the towns and fortifications along the Lower Danubian limes and about the chronology of the process of decline until the final disappearance of late Roman culture.

Hypothetical Routes of some Barbarian Invasions

Analysing and correlating the data we have, which is often scanty, we may try to reconstruct the routes taken by some of the barbarian incursions on the Lower Danube (Pl. XLVII-LVII).

In Chapter II we quoted milestones as proofs of the road reconstructions. Some of these reconstructions may have been undertaken following the destructions caused by the barbarian attacks, or they may be explained by the independent actions of the Emperors.

Some inscriptions may be connected with attacks or invasions, but those containing certain references to such events are very rare. There are two inscribed funeral monuments discovered at Adamclisi, which clearly refer to the invasion by the Costoboci in 170.¹²⁶ At Durostorum an inscription refers to the invasion of 283,¹²⁷ and another probably refers to the war of 295. There is also the foundation inscription of Transmarisca.¹²⁸

* * * *

The first invasion took place in 170 when a migration of the Costoboci by sea and land started. Allied with the Bastarni and Sarmati, they crossed the Danube near Dinogetia and maybe near Noviodunum too, continuing through the centre of Dobruja as far as Tropaeum, which it appears they took and sacked. They then attacked Histria, where the consequent destruction is detectable,¹²⁹ before proceeding southwards through Thracia and Macedonia. The invaders did not attack the fortresses on the limes with the possible exception of Dinogetia. Sacidava does not present signs of burning or destruction in the 2nd century.

The invasions of the middle of the 3rd century started in the year 238, but not all the attacks passed through Scythia Minor. It is possible that in 246 some incursions of the Carpi in search of loot may have struck a limited area in the southwestern part of Dobruja, but they did not affect any of the fortifications. In 248 a strong barbarian coalition led by the Goths invaded and plundered Scythia Minor and Moesia, penetrating as far as Marcianopolis which they besieged. We have no evidence that the fortresses suffered any damage, but the rural areas were devastated. In 249, the great invasion led by the Goth Kniva started and lasted until 251. The weaker of the attacking forces crossed southwards along the coast of the Dobruja. Its principal blows were directed at Novae, Nicopolis, Philippopolis (which was taken), Abritus, Romula and Slaveni. Hoards are known only from Moesia, proving that Scythia Minor was only slightly affected, with perhaps the only rural settlements along the coast suffering. A new, sudden and violent incursion took place in 253, when various hoards were buried in Dobruja. The sacking of Histria probably took place at this time.

In 258, the invaders passed along the western coast of the Black Sea, and probably stopped under the walls of Callatis, where there are extramural hoards. The attacks of 267 ravaged the north of Dobruja: Dinogetia, Noviodunum and Aegysus suffered serious damage, and a contemporary hoard is known from Noviodunum. A new invasion in 269 probably stopped only at Tomis, which was set on fire but was not taken, and then continued southwards.

It seems that the invasion of 295 caused havoc and burning in Dobruja, not only in the rural sites, but also at Sacidava, Beroe, Tropaeum, Histria, Tomis, and elsewhere (hoards from P. Frecaței and Constanța).

The Gothic and Carpic attacks between 315 and 332 are not so well known from the literary sources, but they must have affected Scythia. The most violent attack was that of 331-332, which left traces at Sacidava, Tomis, Arganum, Iatrus and perhaps at Sucidava too.

The invasions and confusion of the years 364-378 caused great destruction in Dobruja, among which we note the burning at Tomis, Arganum, Tropaeum, Iatrus and perhaps Histria. But Capidava, Sucidava, and perhaps Histria and Tomis, were burned in 384-385 (hoards from Medgidia and Strunga) and the north of the province (Dinogetia, Halmyris) was pillaged in 385-386. We can therefore identify three times of destruction in three areas.

The picture of the Hunnic invasions of the middle of the 5th century are more difficult to reconstruct in detail. The most concentrated attacks took place between 434 and 449. The stratigraphy and coin finds indicate that the destruction of Sacidava, Histria, Dinogetia and Tomis took place in 450, and on the western sector of the limes the destruction took place earlier (Sucidava 422-447 (?) and Iatrus 423). Of course pillaging incursions took place throughout the first half of the 5th century and continued in the second half. The second half of the 5th century also saw violent attacks by the Goths allied with Bulgarians between 471 and 488. (Sacidava, Histria, Tomis, Sucidava, Arganum, Iatrus, and a hoard of 471-474 from Mircea-Vodă).

The Bulgarian incursions of 493, 499 and 502 crossed the Danube into western Scythia. The attacks of 528, 529 and 533 caused damage only in

rural areas. Only in 540 did the Bulgarians attack the Roman fortifications, not in Scythia but further south (Thrace, Macedonia, Constantinople), the Danube crossing being made to the west (Iatrus was burned after 530). Between 544 and 551 the attacks were also directed towards Thrace and Illyria. But in 559 the Kutriguri led by Zabergan crossed the Danube into Scythia, probably near Dinogetia, and pillaged the province before moving southwards. Dinogetia, Noviodunum (hoard), Sacidava, Histria and perhaps also Tropaeum were sacked. Another attack came in 562, to judge by a hoard from Topalu.

The Avar incursions between 566 and 582 did not affect Scythia. But in 586-587 the big Avar-Slav invasion ravaged the south-western part of Dobruja (Tropaeum, Durostorum and Sucidava-Izvoarele) as well as other rural areas to the south. A battle with the Avars led by Baian took place near Tomis.

The Roman campaigns between 592 and 602 were carried out to the west of Scythia and north of the Danube.

In 602 the frontier was left undefended by Phocas, which facilitated the Slav invasion of Dobruja. Sacidava, Histria, Dinogetia, Noviodunum, Argamum, Tropaeum and Iatrus (hoards from Istria) were all attacked.

The Major Periods in the History of Dobruja

The history of Scythia Minor, in the context of the development of the Roman Empire in general, has traditionally been divided into two main periods: the Early Roman, and the Late, or Romano-Byzantine, period. But these two important periods, in our opinion, form inadequate description and do not entirely and exactly reflect the development or evolution of Roman civilisation between the Lower Danube and the Black Sea. At this stage in our knowledge it is necessary to propose further sub-divisions of the two main periods, and these sub-divisions may themselves be divided further. We will retain for the time being the conventional division between the Early and Late Periods in the reign of Diocletian.

The Early Roman Period can be divided as follows:

- A. From the annexation of Dobruja to the Empire, in the 1st century A.D. down to the middle of the 3rd century. This is a time of general prosperity and increasing development.
- B. The time of crisis which started about the middle of the 3rd century, determined the features of the second stage which lasted until the reign of Diocletian.

The Late Roman Period can be divided as follows:

- A. The time from Diocletian to Constantius II and Julian (285 to 363), who radically reformed the Empire.

- B. The period from Valens to Theodosius II (364-450), marked by efforts to maintain and restore the Empire.
- C. A period of general prosperity, from Anastasius to Justin II, (491-578).
- D. A period of resistance, from Maurice Tiberius to Heraclius (582-641).

These broad chronological sub-divisions can be further divided into thirteen periods which sum up the history of Roman Dobruja and of the Roman limes on the Lower Danube.

First Period: Begins with the annexation of Dobruja to the Empire and with the introduction of the first auxilia into the territory, in order to defend its boundaries. It lasts until the time of Trajan, the real founder of the Roman limes on the Lower Danube. We have no evidence for this period from our excavations since the camps of the forces introduced by Vespasian have got to be located. We have the stratigraphy of the towns of the western Black Sea coast, but it is not very clear and in this period especially it does not reflect the situation in Dobruja.

Second Period: This covers the reigns of Trajan, Hadrian and Marcus Aurelius (161-180), probably being interrupted in 170 by the invasion of the Costoboci; the burning and destruction can be verified only on the coast. In this period, the limes was first created. On the limes itself the period is less well known, a fact explained by the inadequate excavations carried in the deepest levels of the limes sites.

The Third Period: From the end of the 2nd century to the middle of the 3rd century; between 249 and 267 the general crisis reached its climax in Dobruja with the Carpic-Gothic invasions.

The Fourth Period: This comprises the period of reconstruction in the second half of the 3rd century, starting after the Carpic-Gothic invasions and continuing down to the invasion of 295 (the beginning of the reign of Diocletian). This period can vary from one area to another; most of the work of reconstruction was started under Galerius, Aurelian or Probus.

The Fifth Period: This marks the beginning of the Late Roman Period. At this time the work of restoration was initiated by Diocletian after the invasion of 295. It lasted until the barbarian attacks of 313 to 332.

The Sixth Period: This continues from the preceding period, with all the disturbances mentioned above, until 378-385, that is to say either until Valens' wars, or in some fortresses until the attacks in the reign of Theodosius I. These differences can be explained in terms of the areas affected by the routes taken by the invading barbarians.

The Seventh Period: This is the first half of the 5th century, and was not recognised as a distinct period until recently. It last from the end of the 4th century to the time of Theodosius II, that is to about 450, when the Hunnic invasion took place. This event occurred earlier in the western part of the Lower Danubian limes.

The Eighth Period: This reflects the dark years after the Hunnic invasions, from 450 to 491, troubled by frequent attacks and ending between 471 and 488.

The Ninth Period starts in the year 491 and lasts until the end of the reign of Justinian, when the Kutriguri led by Zabergan destroyed and set on fire many of the fortresses on the Lower Danube (559).

The Tenth Period comprises the years after the invasion of 559, from Justin II until the end of Maurice Tiberius' reign in 602. In very few cases on sites in the south (south of Dobruja) destruction took place in 586-587 (Tropaeum).

The Eleventh Period: The period of Phocas and Heraclius, from 602 to 615 or perhaps even 641.

The Twelfth Period: Either the last years of the reign of Heraclius or later.

The Thirteenth Period: This only consists of modest structures found only on some sites, but the continuity of the Romano-Byzantine population from the middle of the 7th century down to 680 is certain.

CHAPTER III

REFERENCES AND NOTES

1. See note 11 Chapter I and V. Pârvan, Cetatea Tropaeum, p. 2, note 7, p. 170; idem, Ulmetum, I, pp. 515, 595.
2. H. v. Petrikovits, JRS, 61, 1971, p. 196.
3. Ibid., p. 203.
4. M. Gichon, Studien, p. 189. Idem, Excavations at Mezad Tomar-"Tamara" 1973-75, Preliminary Report, Saalburg-Jahrbuch, 33, 1976, pp. 8, 80-94.
5. S. Soproni, Actes, pp. 182-183, figs. 2 and 3.
6. H. v. Petrikovits, op. cit., p. 182, fig. 17, p. 194, fig. 26/4.
7. R. Florescu, BMI, 3, 1972, pp. 23, 24.
8. H. Schönberger, op. cit., passim; H. v. Petrikovits, op. cit., passim.
9. R. Fellmann, Le "Camp de Dioclétien" à Palmyre et l'architecture militaire du Bas-Empire, Mélanges d'histoire ancienne et d'archéologie—P. Collart, Cahiers d'archéologie Romande, 5, Lausanne, 1976, pp. 173-191.
10. Ibid., p. 178.
11. R. G. Collingwood, Ian Richmond, The Archaeology of Roman Britain, London, 1969, p. 50, fig. 186, p. 52, fig. 196, p. 54, fig. 20.
12. K. Wachtel, Actes, p. 139, fig. 1.
13. R. Fellmann, op. cit., p. 184 and fig. 13.
14. S. S. Frere, Britannia. A History of Roman Britain.
15. Iulius Capitolinus, SHA, Maximus et Balbinus, 16, 3.
16. SHA, Gordianus III, 26, 4; 34, 4.
17. R. Vulpe, DID, 2, p. 240, B. Mitrea, in Pontica, 8, 1975, pp. 125-175.
18. Dexippus, FHG, 18, Iordanes, Getica, 91, 92 (=Fontes, 2, p. 421).
19. Iordanes, op. cit., 100-103 (=Fontes, 2, p. 423); Aurelius Victor, Caesares, 29; Amm. Marcellinus, XXXI, 15 (=Fontes, 2, p. 141); Dexippus, FHG, 16. R. Vulpe, DID, 2, pp. 244-249.
20. Zosimos, I, 26-28 (I, 26, Fontes, 1, p. 303).
21. Camena (near Histria) and Saragea, (253 e.n.). Cf. H. Nubar, Histria, 3, 1973, pp. 68-69.

22. Zosimos, I, 34, 2; I, 35, 2 (=Fontes, 2, p. 305).
23. Trebellius Pollio, SHA, Gallieni, 13, 6.
24. R. Vulpe, DID, 2, pp. 258-259.
25. Zosimos, I, 42 (=Fontes, 2, pp. 305-306). SHA, Claudius, 6, 1.
26. E.g. Callatis, probable at 249, 258-59, 265-66 A.D. (cf. Gh. Poenaru-Bordea, SCN, 5, 1971, p. 107).
27. B. Mitrea, op. cit., pp. 147-148.
28. H. Nubar, op. cit., p. 68, note 246.
29. C. Preda, Peuce, 2, 1971, pp. 174-175. A different opinion at Gh. Poenaru-Bordea, apud B. Mitrea (SCN, 5, 1971, p. 107).
30. C. Preda, loc. cit., pp. 173-174.
31. V. Pârvan, Cetatea Tropaeum, Buc., 1912, p. 44; idem, Histria, VII, p. 105; S. Lambrino, Revue des études latines, 11, 1933, pp. 457-463; Em. Condurachi, Histria, 1, pp. 57-58; D. M. Pippidi, Contribuții², 464-480; Em. Doruțiu, St. Cl., 6, 1964, pp. 247-259; R. Vulpe, DID, 2, pp. 230-268; idem, St. Cl., 11, 1969, pp. 157-172; Al. Suceveanu, Dacia, NS, 13, 1969, pp. 347-48; Gh. Poenaru-Bordea, SCN, 5, 1971, pp. 91-113; H. Nubar, op. cit., pp. 68-69; Al. Suceveanu, Viața economică în Dobrogea romană, Buc., 1977, pp. 28-29.
32. H. Nubar, op. cit., p. 69; Al. Suceveanu, op. cit., p. 29.
33. D. Tudor, Sucidava, 1974, pp. 95-96.
34. Al. Suceveanu, op. cit., p. 364; V. Barbu, Tomis, ed. Albatros, 1972, p. 59 (Coins Aurelian and Tacitus in the precinct wall).
35. Aurelius Victor, Caesares, 39, 43 (=Fontes, 2, p. 25). Eusebius, VIII, 17, 3 (=Fontes, 2, p. 11).
36. CIL, III, 6151; I. I. Russu, AISC, 2, 1933-35, 1936, pp. 210-212.
37. Gh. Stefan, Dacia, I, 1957, pp. 225-227; I. Barnea, DID, 2, 1968, pp. 374-376; Al. Suceveanu, op. cit., p. 364; H. Nubar, op. cit., p. 71.
38. Gh. Bordea, Pontica, 4, 1971, p. 322; H. Nubar, op. cit., p. 71.
39. Information R. Ocheșeanu; A. Petre, Materiale, 8, 1962, p. 568.
40. Gh. Poenaru-Bordea, op. cit., p. 323.
41. Al. Suceveanu, op. cit., p. 340.
42. Măcin, Adamclisi, Fântâna Mare, 6 Martie, cf. Gh. Poenaru-Bordea, op. cit., p. 323 and note 22.
43. Excerpta Valesiana, 21, 27, 31, 32; Zosimos, II, 21 (=Fontes, 2, p. 307).
44. Amm. Marcellinus, XXVII, 4, 6; XXII, 7, 7. (=Fontes, 2, pp. 121-122.)
45. Idem, XXVI, 10, 4. Zosimos, IV, 7 (=Fontes, 2, p. 309).
46. Amm. Marcellinus, XXVI, 10, 4 (=Fontes, 2, p. 119).

47. Idem, XXVII, 5; Zosimos, IV, 10 (=Fontes, 2, p. 310). Codex Theodosianus, X, 16, 2.
48. I. Barnea, DID, 2, pp. 395-396.
49. Amm. Marcellinus, XXXI, 4-6 (=Fontes, 2, pp. 129-131).
50. Idem, XXI, 7-13; Iordanes, Getica, XXVI.
51. I. Barnea, op. cit., p. 405.
52. O. Iliescu, SCN, 2, 1958, p. 453, no. 10, hoard from Strunga, near Oltina. R. Ocheșeanu, A. Dumitrașcu, Pontica, 5, 1972, p. 537, hoard from Medgidia.
53. Al. Suceveanu, C. Scorpan, Pontica, 4, 1971, p. 168; Gh. Poenaru-Bordea, Pontica, 4, pp. 322-323; Al. Suceveanu, Dacia, NS, 13, p. 340.
54. H. Nubar, op. cit., pp. 74-75.
55. Ibid., pp. 75-76.
56. Ibid., p. 77.
57. I. Barnea, op. cit., pp. 406-409.
58. Sozomenos, VII, 26 (=Fontes, 2, p. 229).
59. Priscus, 1 (=Fontes, 2, p. 249).
60. Iordanes, Getica, 266 (=Fontes, 2, p. 431).
61. Priscus, 20 (=Fontes, 2, p. 297, note 22). Marcellinus Comes, a. 469 (=Fontes, 2, pp. 361-362).
62. Iordanes, Getica, 267 (=Fontes, 2, 431).
63. I. Barnea, op. cit., p. 409.
64. See the chapters on stratigraphy—Sacidava and Histria.
65. Gh. Poenaru-Bordea, Pontica, 4, 1971, pp. 325-326; idem, BMI, 3, 1971, p. 52; H. Nubar, op. cit., p. 74.
66. V. Culica, Pontica, 5, 1972, p. 237.
67. M. Coja, op. cit., BMI, 3, 1972, p. 38.
68. SCIV, 1-2, 1954, p. 162, fig. 3.
69. Inform. Al Barnea.
70. C. Moisil, BSNR, 10, nr. 19, 1913, p. 21 (Apud Gh. Poenaru-Bordea, op. cit., p. 52, note 18).
71. V. Pârvan, Histria, IV, p. 701; Idem, Dacia, 2, 1925, p. 248; Em. Popescu, St. Cl., 8, 1966, pp. 197-206; I. Barnea, Dacia, NS, 4, 1960, p. 365.
72. Gh. Poenaru-Bordea, V. Barbu, Dacia, NS, 14, pp. 251-295.
73. Sozomenos, IX, 5, 1 (=Fontes, 2, pp. 229-231); D. Tudor, Sucidava, 1974, p. 97.

74. Inform. B. Böttger.
75. Marcellinus Comes, a. 493, a. 499 (=Fontes, 2, p. 36). Theophanes, Chronographia, a. 502 (=Fontes, 2, p. 597). P. Lemerle, Invasions et migrations dans les Balkans depuis le fin de l'époque romaine jusqu'au VIII-e siècle, Revue historique, tome 211, 1954, p. 283.
76. I. Barnea, DID, 2, pp. 412-414.
77. Procopius, De bello gothico, III, 40, 5.
78. Ibid., III, 14.
79. Ibid.
80. Agathias, Historiae, V, 11-25 (=Fontes, 2, pp. 479-481); Theophanes, a. 559 (=Fontes, 2, p. 601); Menander Protector, Fragmente, 3 (=Fontes, 2, p. 509).
81. Gh. Poenaru-Bordea, Pontica, 4, p. 327, note 40.
82. I. Barnea, Dacia, NS, 10, 1966, p. 237.
83. C. Moisil, BSNR, 11, no. 21, 1914, p. 55.
84. Menander Protector, Fragmente, 4, 9 (=Fontes, 2, p. 511); Agathias, IV, 22 (=Fontes, 2, p. 477).
85. Menander, 28, 33, 47, 48 (=Fontes, 2, pp. 515-518).
86. I. Barnea, DID, 2, pp. 431-432.
87. John of Ephesus, apud, I. Barnea, op. cit., p. 432.
88. Theophilactus Simocatta, I, 8 (=Fontes, 2, p. 535).
89. B. Mitrea, SCIV, 2, 1966, p. 426, nr. 61.
90. A. Petre, Dacia, NS, 7, 1963, pp. 320-321.
91. Ibid., pp. 322, 325; Gh. Poenaru-Bordea, BMI, 3, 1971, p. 56; SCIVA, 2, 1976, pp. 226-227.
92. All arguments in I. Barnea, Dacia, NS, 10, 1966, pp. 237-260.
93. Gh. Poenaru-Bordea, BMI, cit., pp. 55-56; SCIV, cit., p. 227.
94. D. Tudor, Sucidava, 1974, p. 132.
95. For instance M. Sâmpetru, SCIV, 2, 1971, p. 217.
96. Th. Simocatta, I, 8 (=Fontes, 2, p. 535).
97. Cf. I. Barnea, DID, 2, p. 433.
98. I. Barnea, DID, 2, pp. 435-438.
99. Simocatta, VI, 3, 6, 7; VII, 1, 7, 13; VIII, 1, (=Fontes, 2, pp. 541-547).
100. Theophanes Confessor, a. 592-1., 602 (=Fontes, 2, pp. 605-716).
101. I. Dimian, SCN, 2, 1958, p. 415.

102. I. Dimian, SCN, 1, 1957, p. 194.
103. A. Petre, loc. cit.
104. J. Jurukova, Byzantinobulgarica, 3, 1969, pp. 262-263.
105. I. Barnea, op. cit., pp. 439-441.
106. Ibid., pp. 443-445. Gh. Poenaru-Bordea, BMI, cit., pp. 56-57.
107. I. Barnea, SCIV, 2, 1962, p. 279 and following.
108. Em. Popescu, St. Cl., 7, 1965, p. 253 (=Idem, Inscriptiile din sec. IV-XIII descoperite în România, Buc., 1976). I. Barnea, DID, 2, pp. 443, 463-464.
109. A. Petre, op. cit., pp. 320-321.
110. Ibid., pp. 324-325.
111. Ibid., p. 331.
112. Ibid., p. 325.
113. Ibid., p. 334.
114. Em. Condurachi, Dacia, NS, 1, 1957, pp. 249-562.
115. H. Nubar, SCN, 3, 1960, p. 190.
116. Ibid., p. 191.
117. A. Petre, op. cit., pp. 346-347.
118. V. Pârvan, Cetatea Tropaeum, pp. 110-191.
119. Dacia, NS, 12, 1968, pp. 409-411.
120. op. cit., p. 217 et seq.
121. Ulmetum, 2, pp. 42-50.
122. B. Mitrea, SCIV, 2, 1966, p. 426, nr. 60.
123. Gh. Poenaru-Bordea, BMI, 3, 1971, pp. 56-57.
124. Al. Popea, Peuce, 4, 1975, p. 191.
125. N. Iorga, Histoire des Roumains et de la Romanité orientale, 2, Buc., 1937, p. 365, note 1, p. 376.
126. V. Pârvan, Cetatea Tropaeum, p. 48; Em. Popescu, St. Cl. 5, 1964, p. 192; R. Vulpe, DID, 1, p. 159.
127. R. Vulpe, op. cit., p. 232.
128. I. Barnea, DID, 2, p. 375.
129. Al. Suceveanu, Viața economică în Dobrogea romană, Buc., 1977, pp. 26-27 (with bibliography).

A SYNOPSIS OF THE ROMAN HISTORY OF DOBRUJA

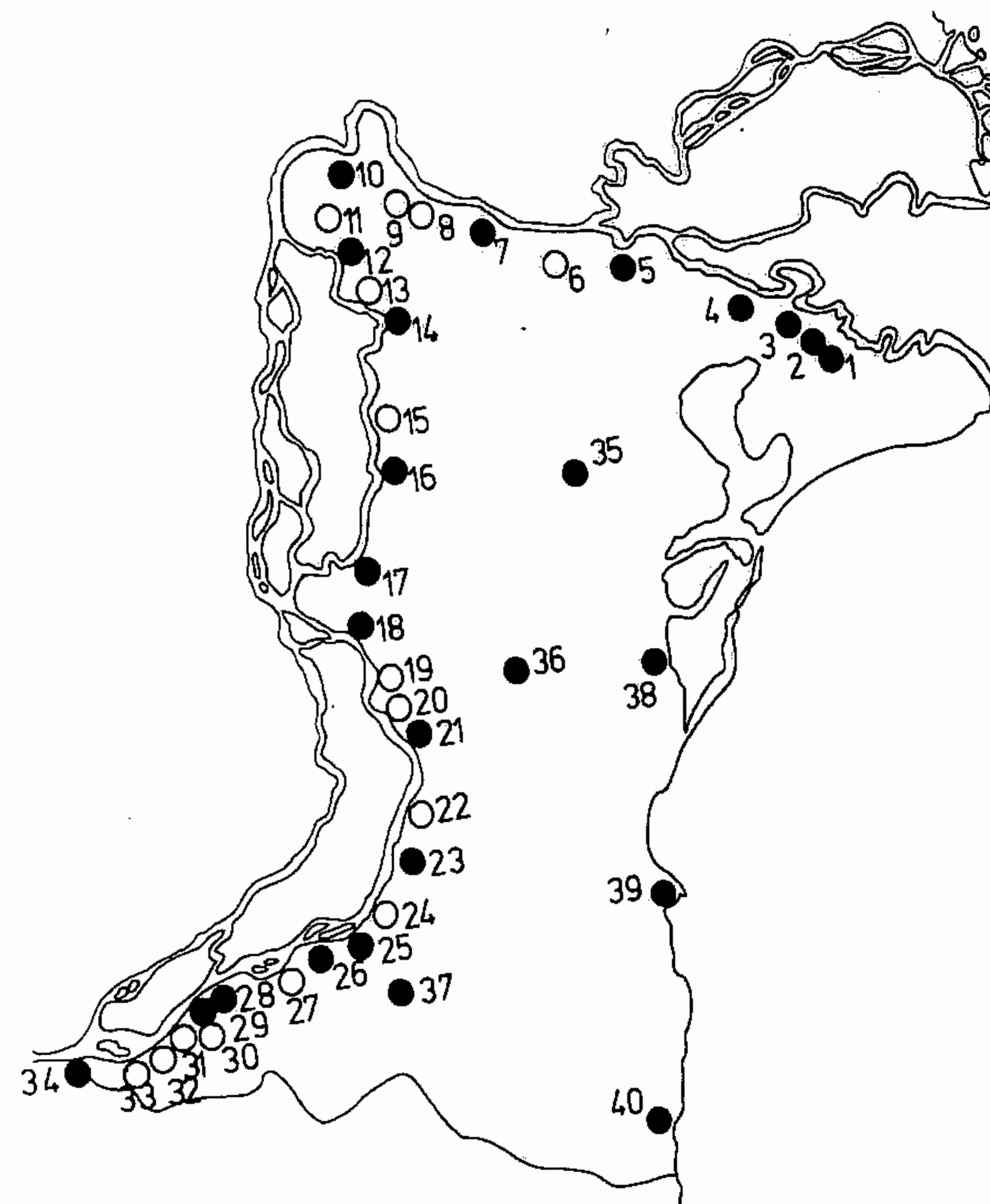
		SACIDAVA	DINOCETIA	HISTRIA	TOMIS	ARGAMUM	TROPAEUM	SUCIDAVA	IATRUS
D	XIII	Level I ₁							
	XII	Level I ₂		Level I			Level Phocas-Heraclius		
	XI	Level I. Phocas-Heraclius, (602 to 614-615)		Level II		Level	Level Maurice-Phocas		
	X	Level II. Justin II-Maurice Tiberius (562-602)	Level	Level III Fire-602		Level	Fire 586/87	Level ?	Level. Fire-602
C	IX	Level III. Anastasius-Justinian (491-559)	Level. Fire-559	Level IV Fire-559		Level		Level	Level. Fire post 530-540
	VIII	Level IV ₁ . Second half of 5th century (Theodosius II-Anastasius)	?	Level V	Level I ₁	?		Level. Fire end 5th century	Level
B	VII	Level IV ₂ . First half of 5th century (Arcadius-Theodosius II). Fire-450	Level	Level VI. 383-450 Fire	Level I ₂ (423 ?)	Level	Level	Level. Fire (408-423 or 442-447)	Level Fire #23
	VI	Level V. Second half of 4th century (Constantinus II-Gratian). Fire 385-386		?	Level II	Level (366 ?-378)	Fire (378 ?)	Level	Level. Fire 376
A	V	Level VI. End of 3rd century-beginning 4th century (296-332)	Level	Level VII. 295	Level III	Level 296-315/332	Level	Level. Constantine-Constantinus II (296-324)	Level
	IV	Level VII. Second half of 3rd century (268-296)	Level	Level VIII. 295	Level IV Fire 295	Level	Level Fire-295	Construction Level-Aurelian	Level ?
A	III	Level VIII. First half of 3rd century perhaps from end of 2nd century to 251/253. Fire.	Level Fire	Level IX. 251-253	Level V	Level			
	II	Level IX. 2nd century, perhaps first half	Level	Level X. 170	Level VI	Level			

LATE ROMAN PERIOD

EARLY ROMAN PERIOD

PLATE I: THE LIMES SCYTHIAE

- | | | |
|---------------|-----------------|-------------------------|
| 1. Halmyris | 16. Beroe | 31. Canlia |
| 2. Ad Stoma | 17. Cius | 32. Dervent |
| 3. Gratiana | 18. Carsium | 33. Bugeac |
| 4. Salsovia | 19. Ghindaresti | 34. Durostorum |
| 5. Aegyssus | 20. Topalu | 35. Libida |
| 6. Somova | 21. Capidava | 36. Ulmetum |
| 7. Noviodunum | 22. Seimeni | 37. Tropaeum
Traiani |
| 8. Luncavita | 23. Axiopolis | 38. Histria |
| 9. Rachelu | 24. Cochirleni | 39. Tomis |
| 10. Dinogetia | 25. Flaviana | 40. Callatis |
| 11. Jijila | 26. Sacidava | |
| 12. Arrubium | 27. Dunareni | |
| 13. Carcaliu | 28. Altinum | |
| 14. Troesmis | 29. Sucidava | |
| 15. Peceneaga | 30. Satu Nou | |

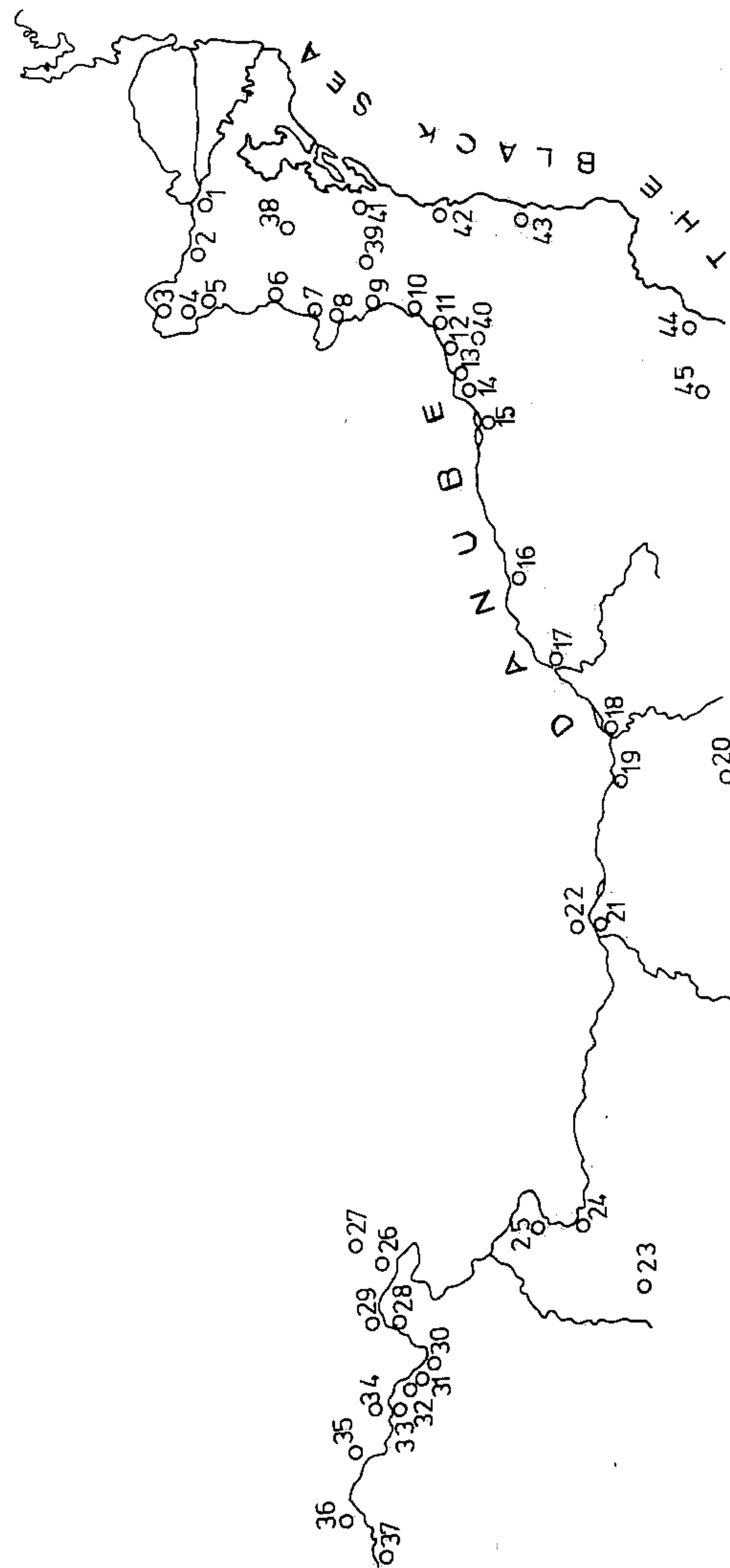


- Identified fortresses.
- Fortresses not identified.

Plate I Limes Scythiae.

PLATE II: THE LOWER DANUBIAN LIMES

- | | | |
|----------------|-------------------------|-------------------|
| 1. Aegyssus | 16. Nova Cerna | 31. Ravna |
| 2. Noviodunum | 17. Sexaginta Prista | 32. Boljetin |
| 3. Dinogetia | 18. Iatrus | 33. Novae-Cezava |
| 4. Arrubium | 19. Novae | 34. Gornea |
| 5. Troesmis | 20. Nicopolis ad Istrum | 35. Pojejena |
| 6. Beroe | 21. Oescus | 36. Laederata |
| 7. Cius | 22. Sucidava-Celei | 37. Viminacium |
| 8. Carsium | 23. Castra Martis | 38. Libida |
| 9. Capidava | 24. Ratiaria | 39. Ulmetum |
| 10. Axiopolis | 25. Bononia | 40. Tropaeum |
| 11. Flaviana | 26. Drobeta | 41. Histria |
| 12. Sacidava | 27. Putinei | 42. Tomis |
| 13. Altinum | 28. Hajducka Vodenica | 43. Callatis |
| 14. Sucidava | 29. Dierna | 44. Odessos |
| 15. Durostorum | 30. Taliata | 45. Marcianopolis |



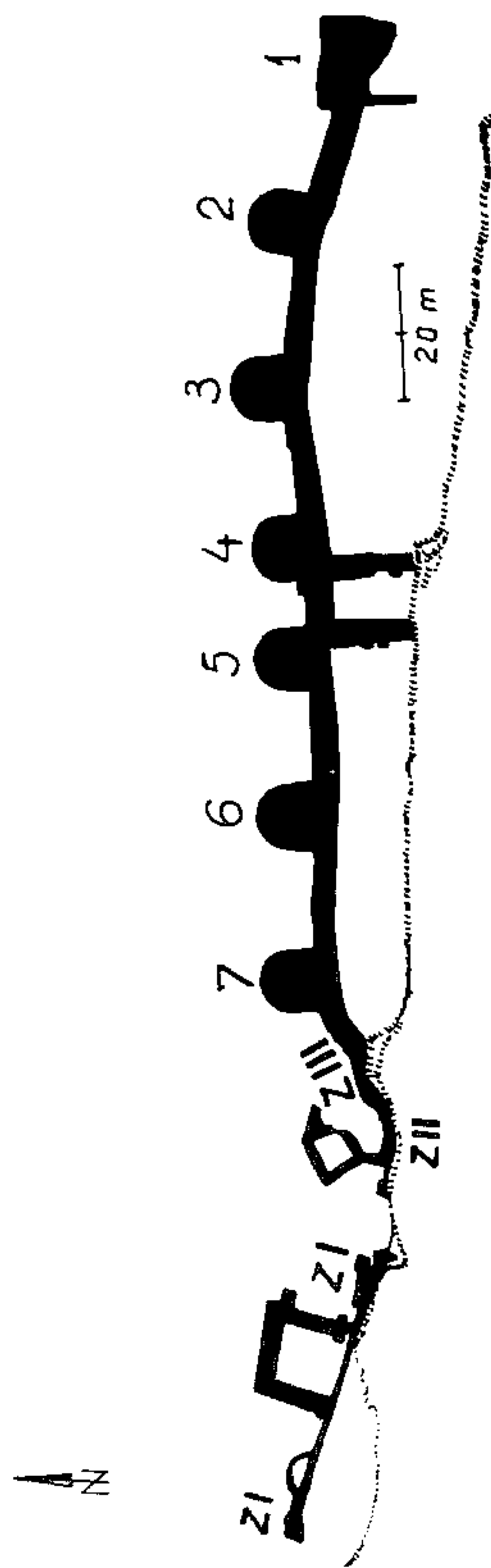


Plate III Noviodunum. Northern side of the defences.

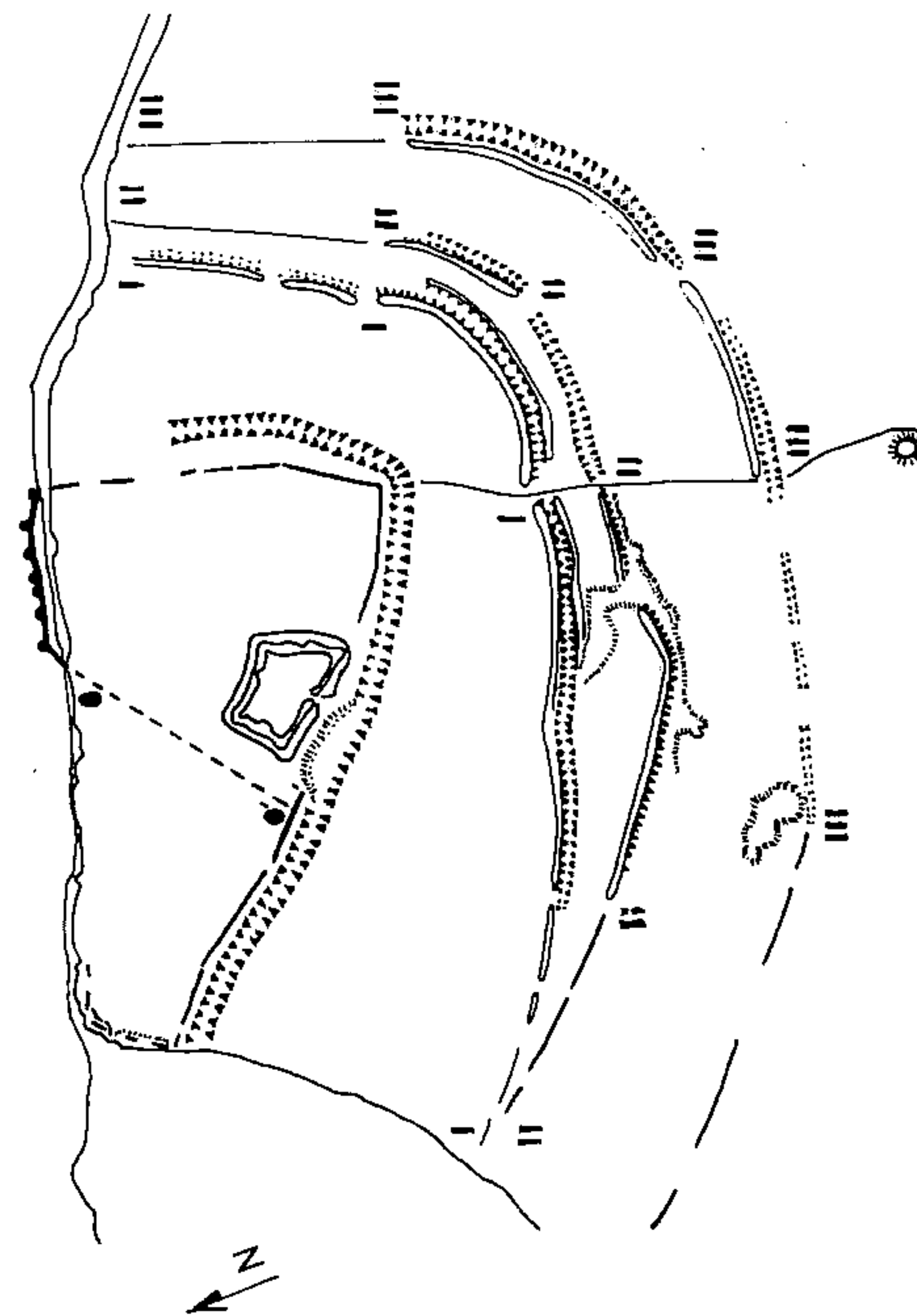


Plate IV Noviodunum. Restoration based on aerial photographs

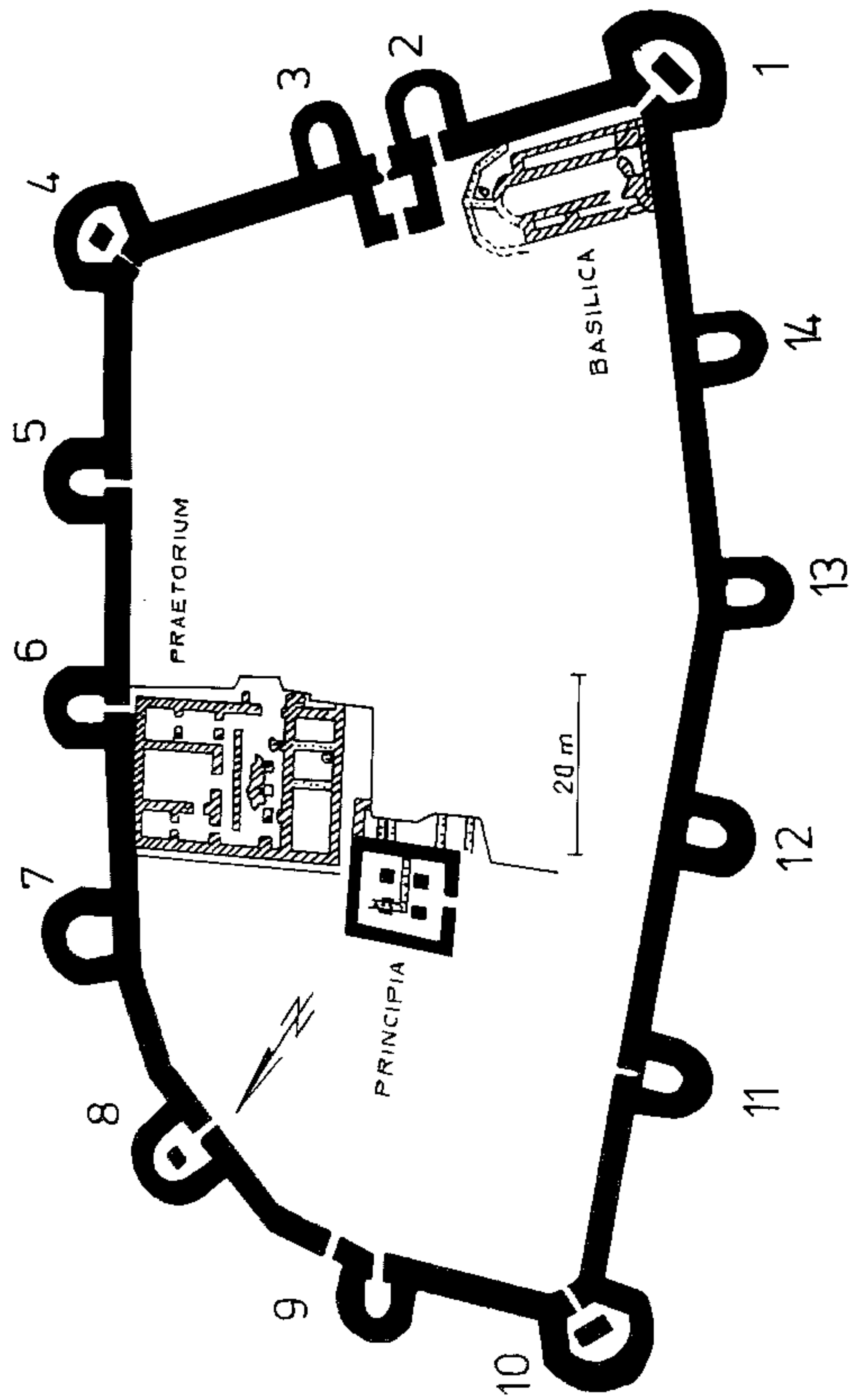


Plate V *Dinogetia*.

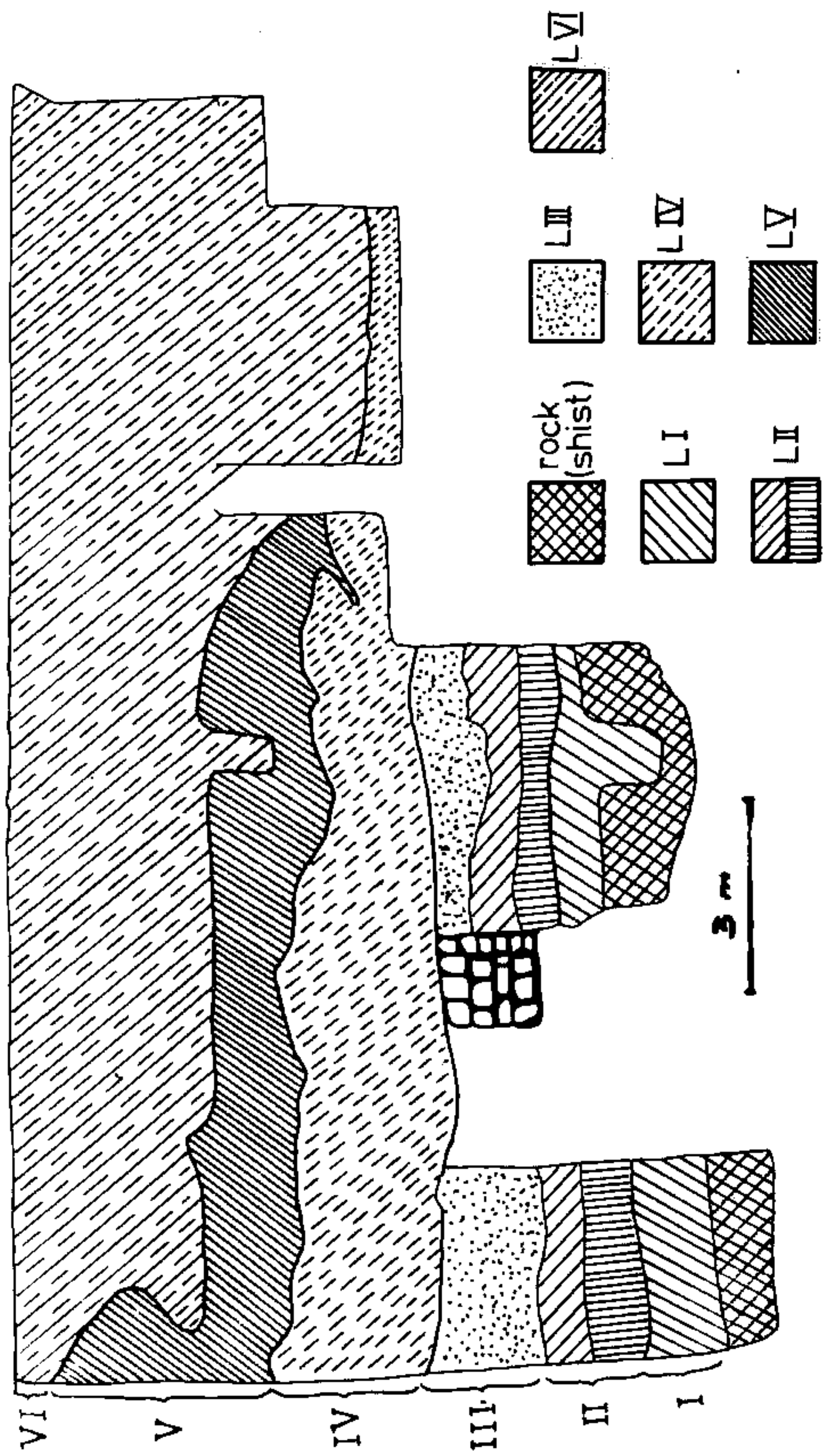


Plate VI Section at Dinogetia

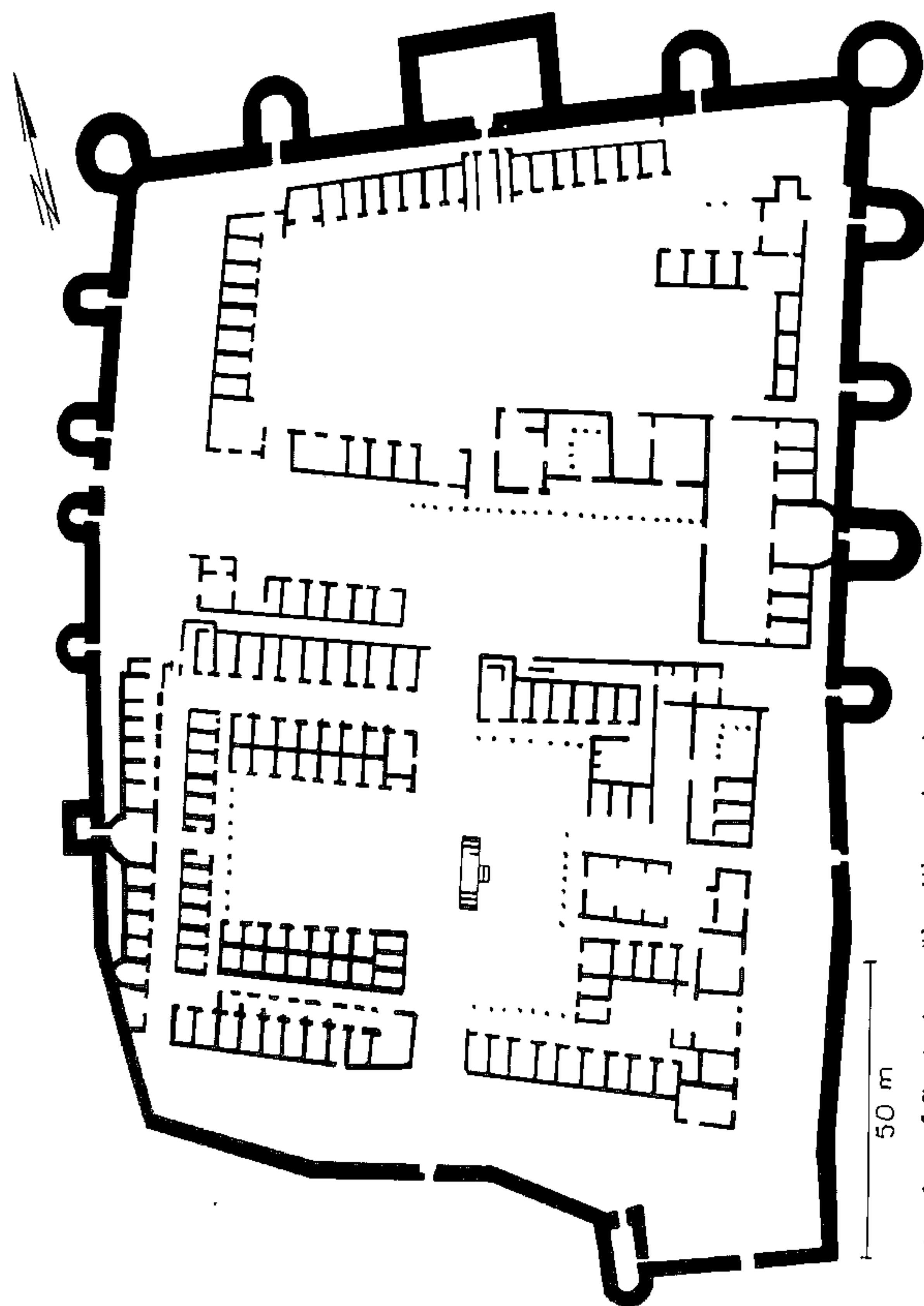


Plate VII Troesmis—plan of first stage (the 4th century)

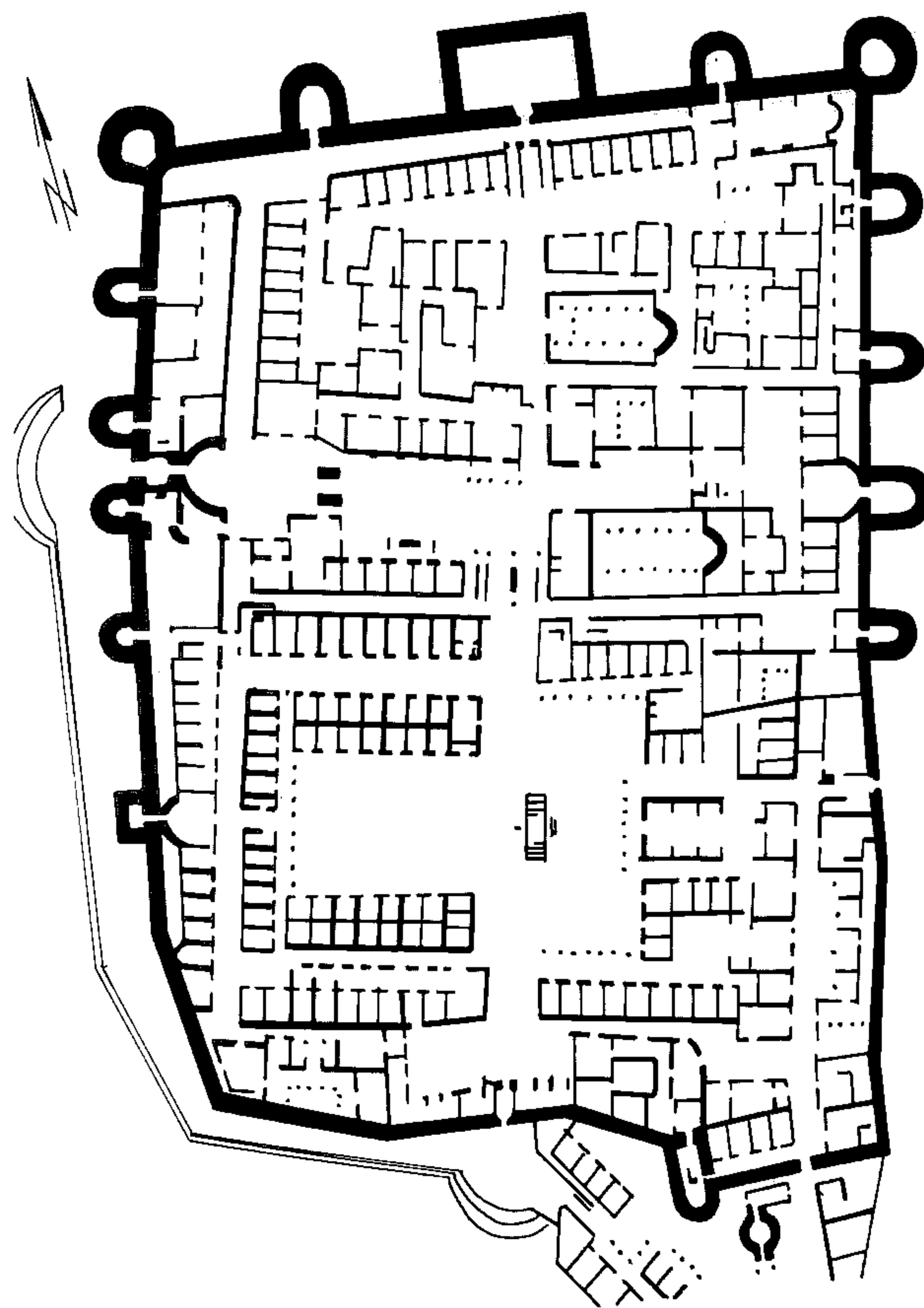


Plate VIII Troesmis—plan of the second stage (the 6th century)

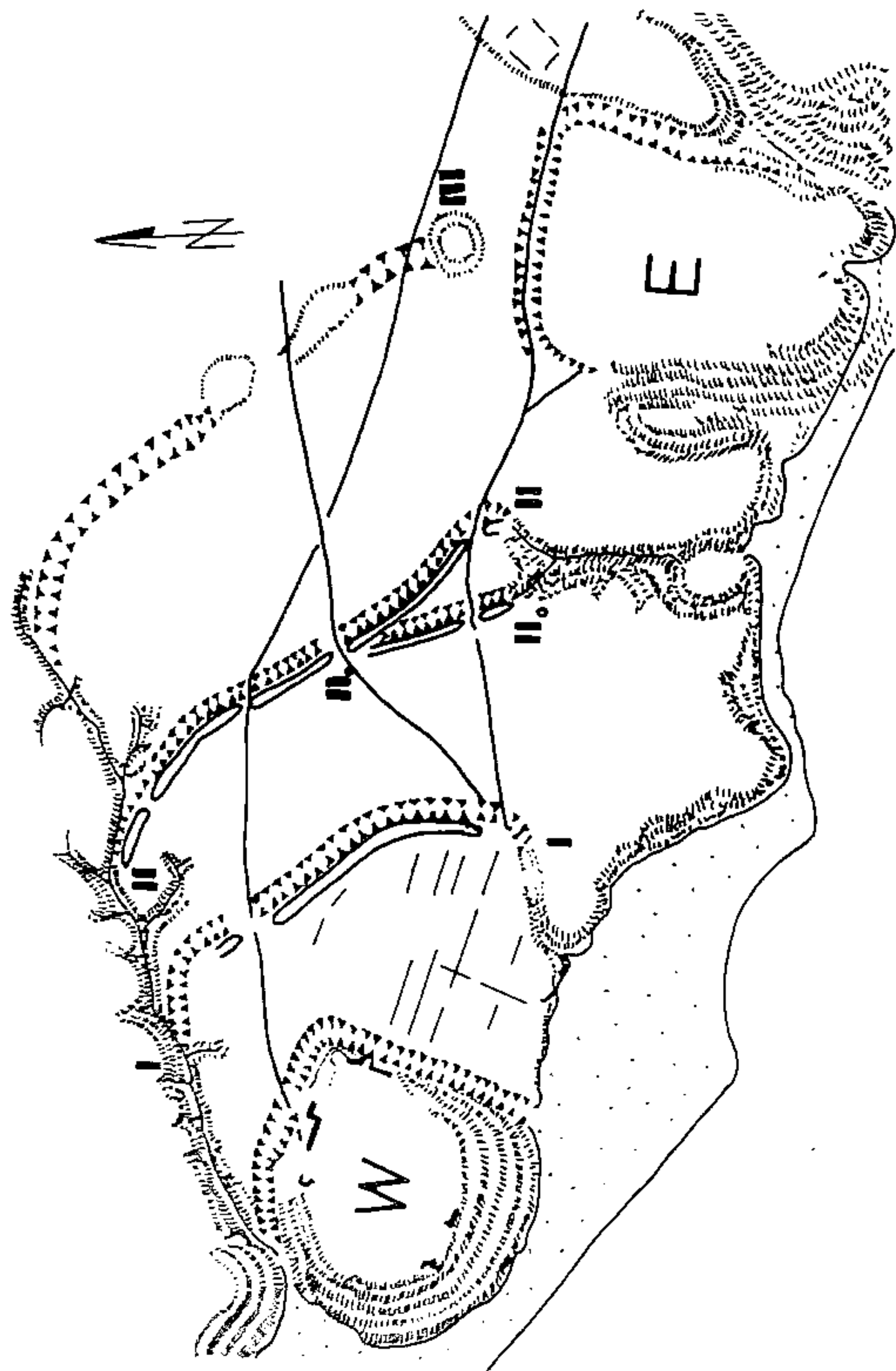


Plate IX Troesmis area. Plan based on aerial photographs

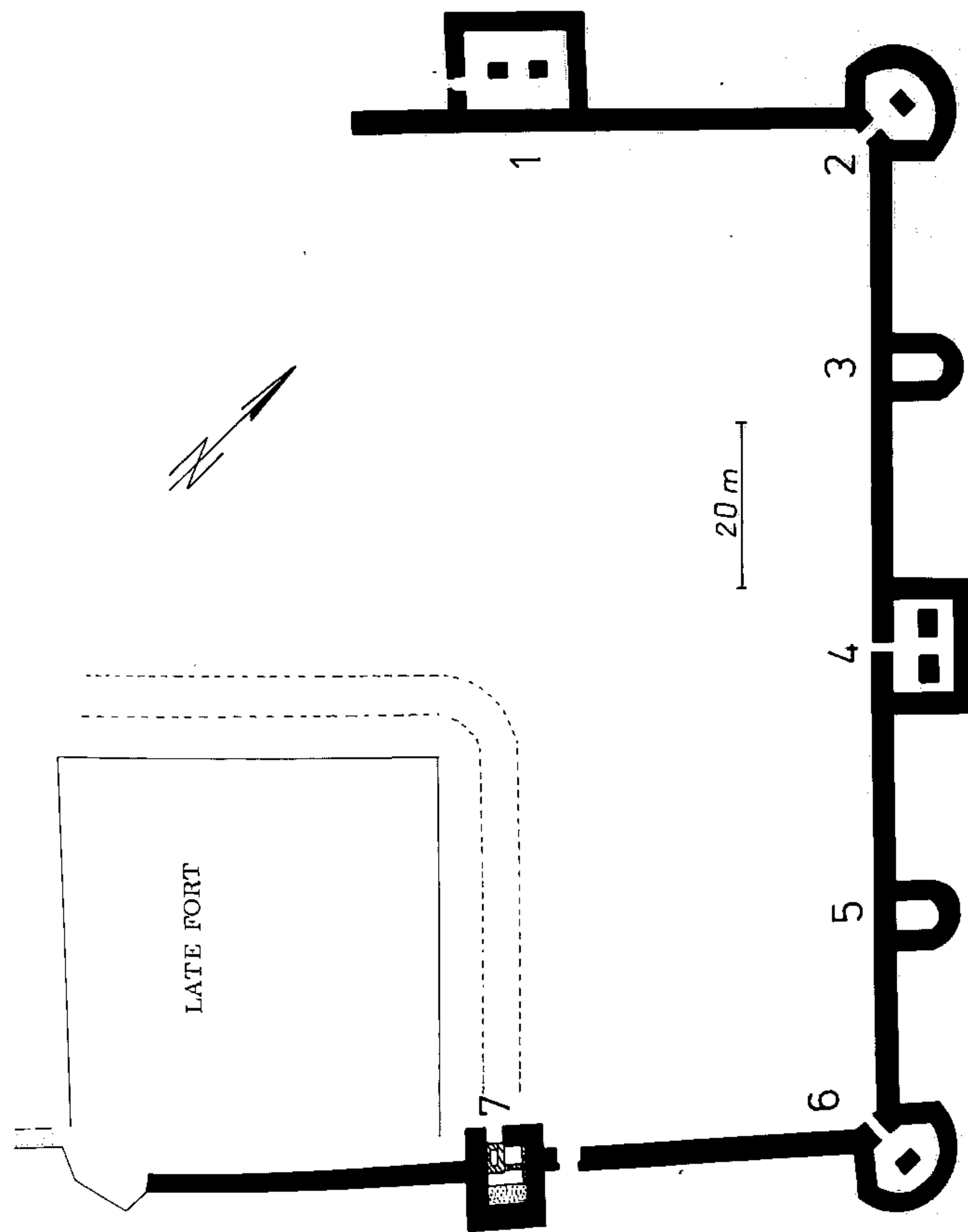


Plate X Capidava—plan.

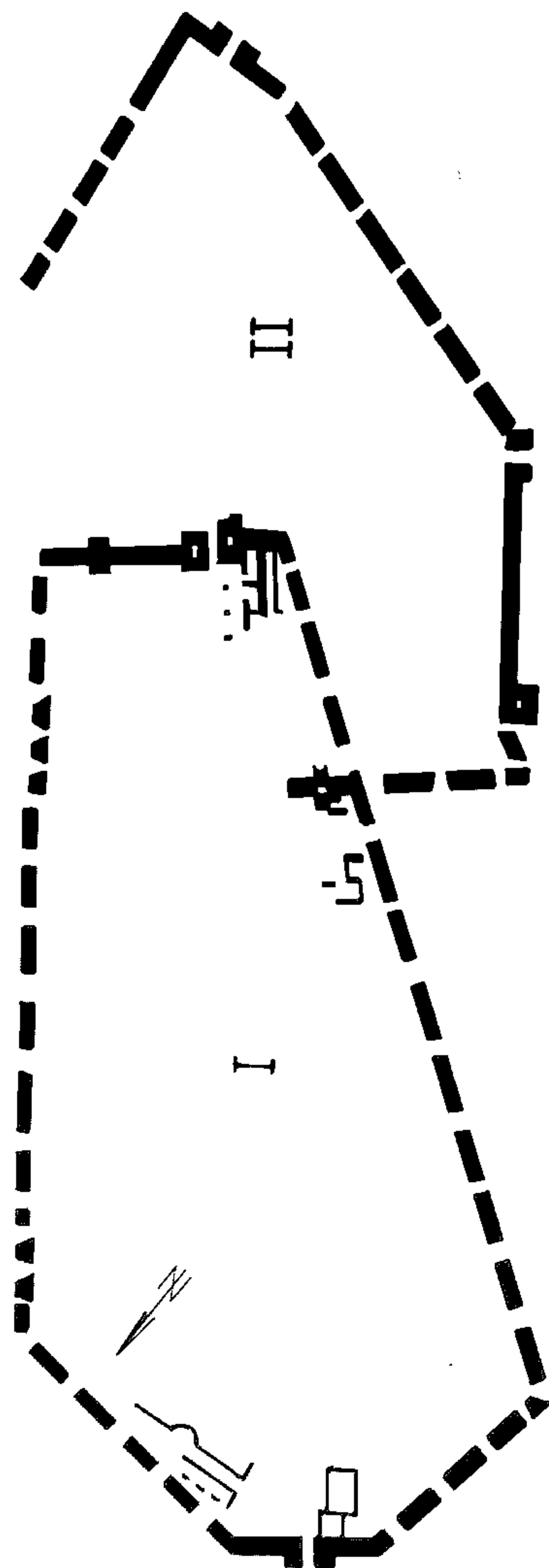


Plate XI Axiopolis—plan. 1) Fortress I. 2) Fortress II.

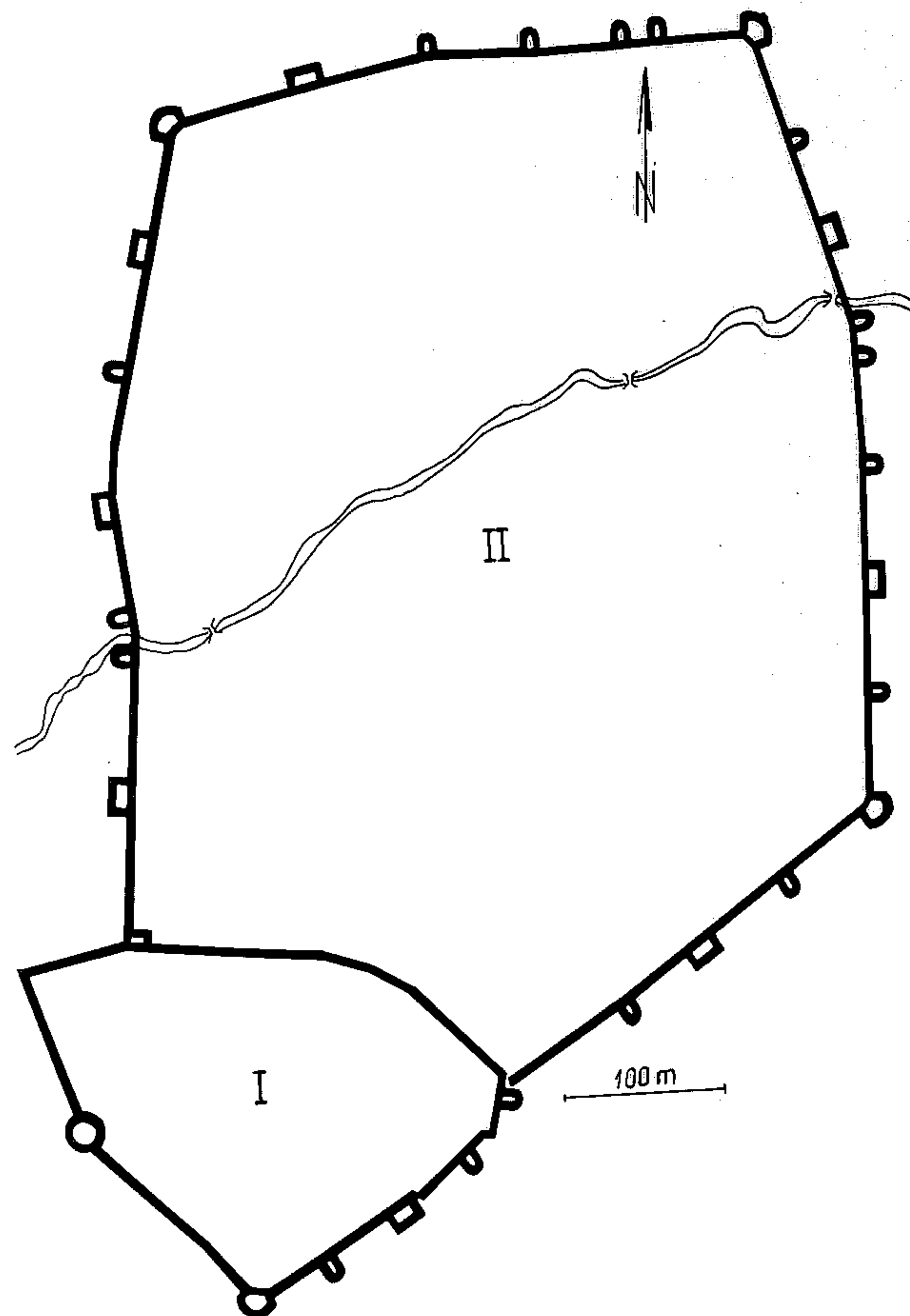
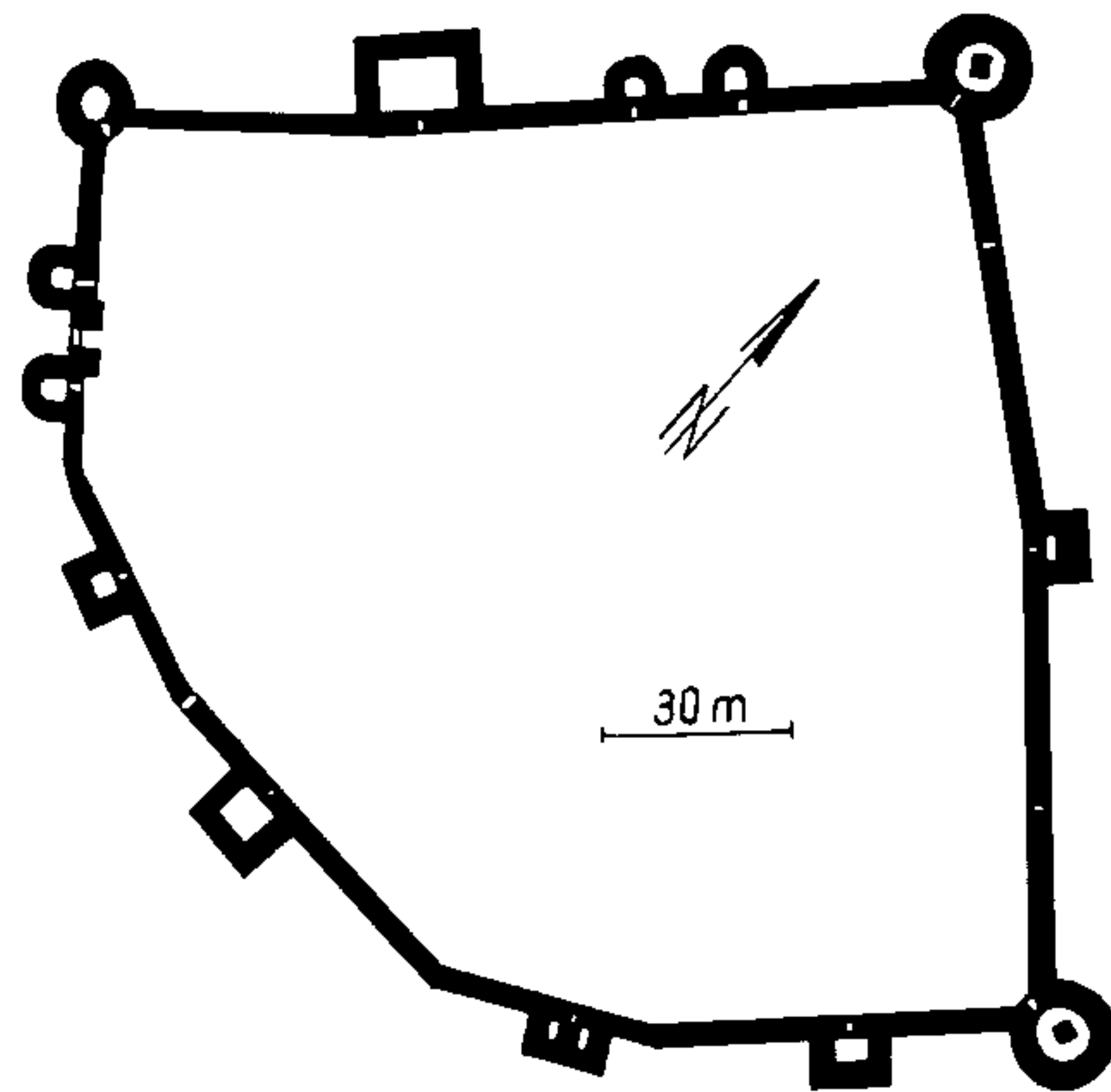
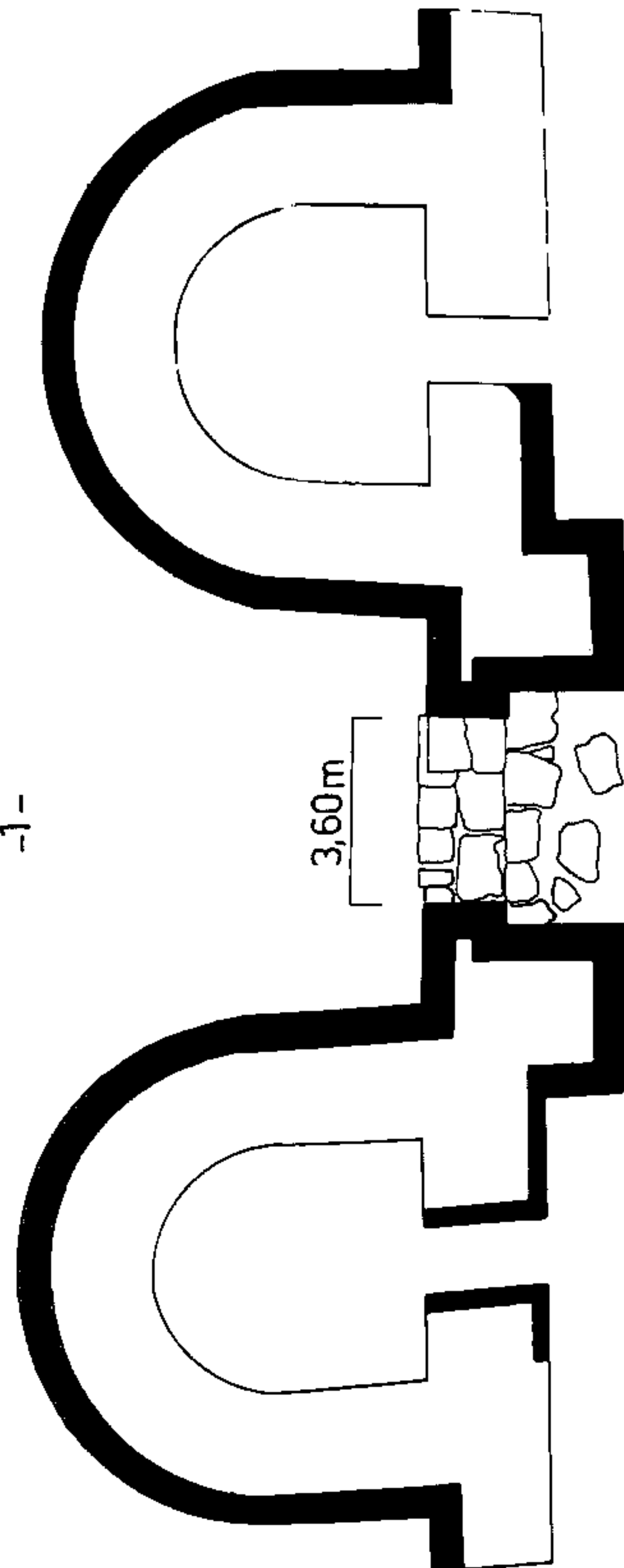


Plate XII Libida. 1) Fortress I. 2) Fortress II.

Plate XIII Ulmetum—plan.



-1-



-2-

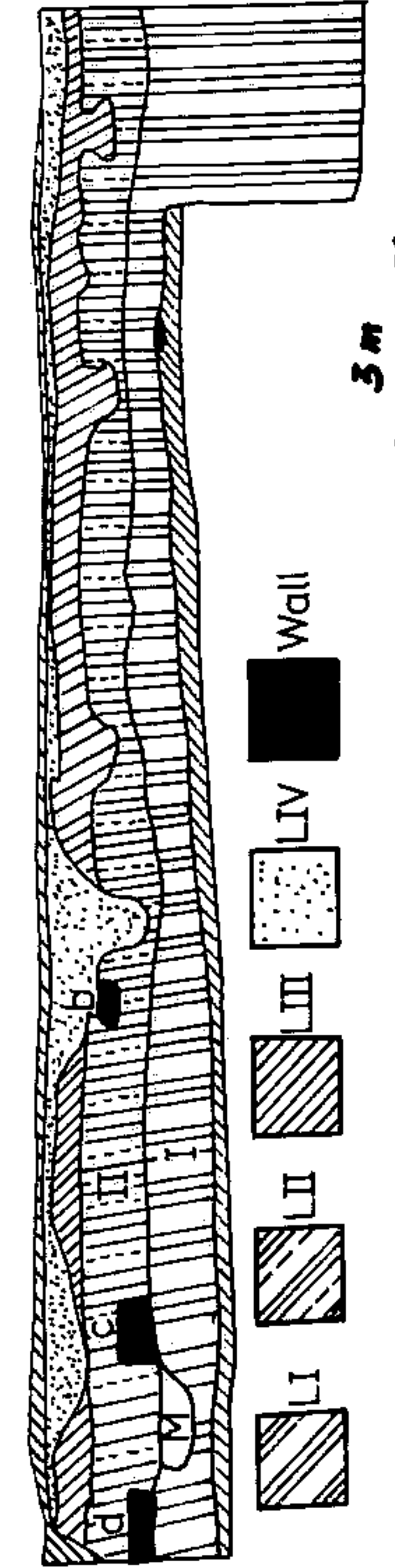


Plate XIV 1) SW Gate of Ulmetum. 2) Capidava—section

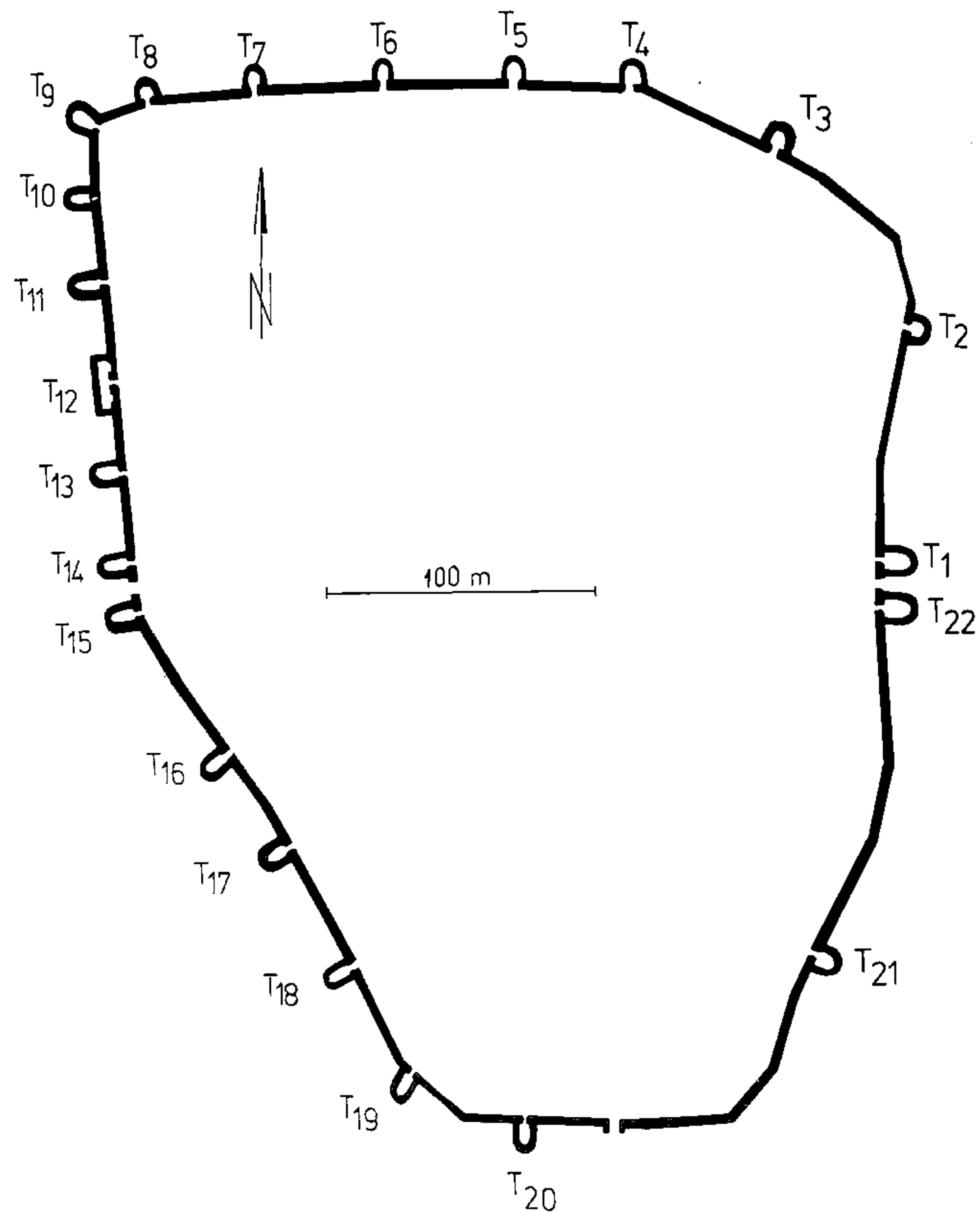


Plate XV Tropaeum Traiani—plan.

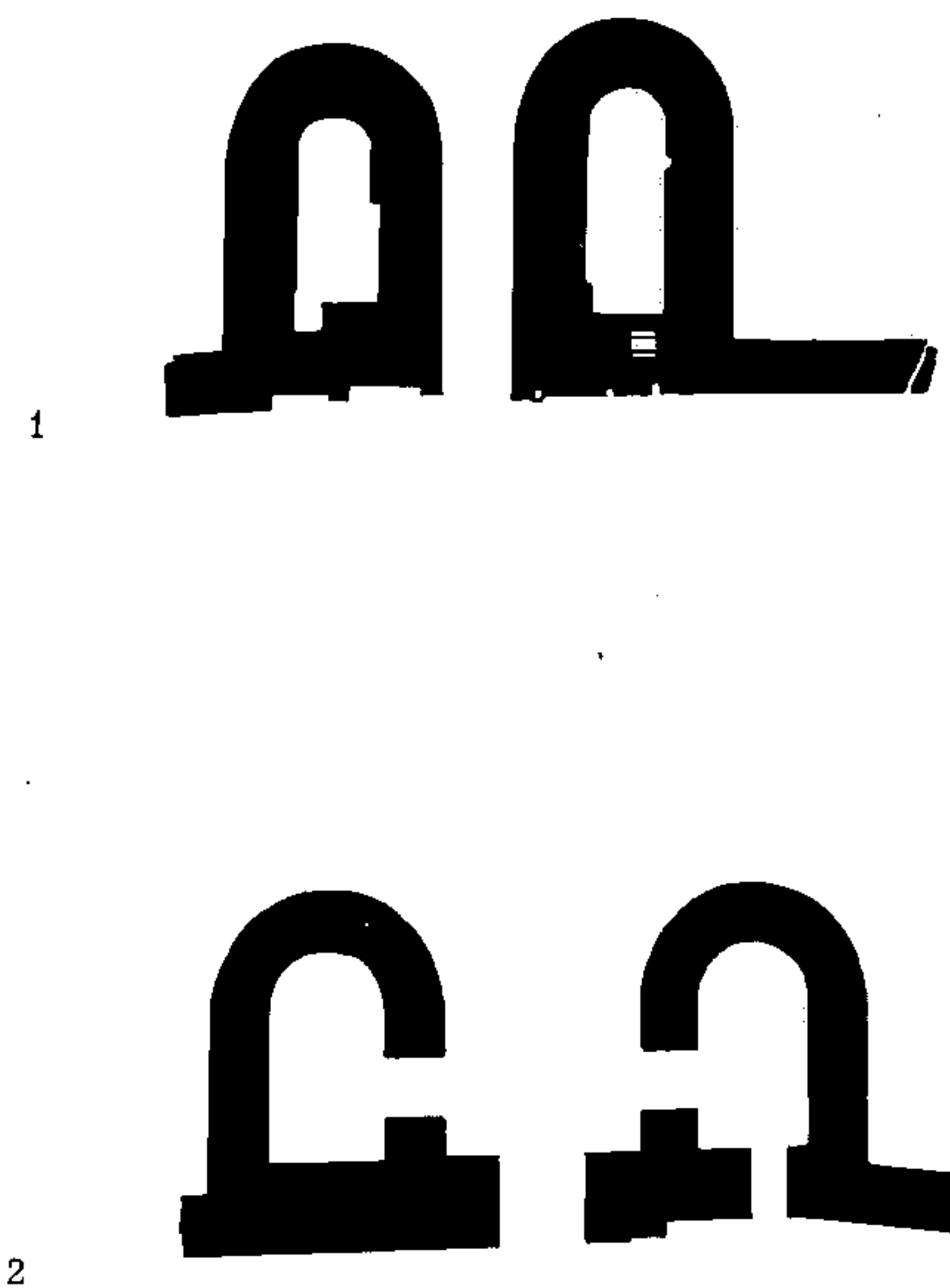


Plate XVI Tropaeum—1) East gate. 2) West gate.

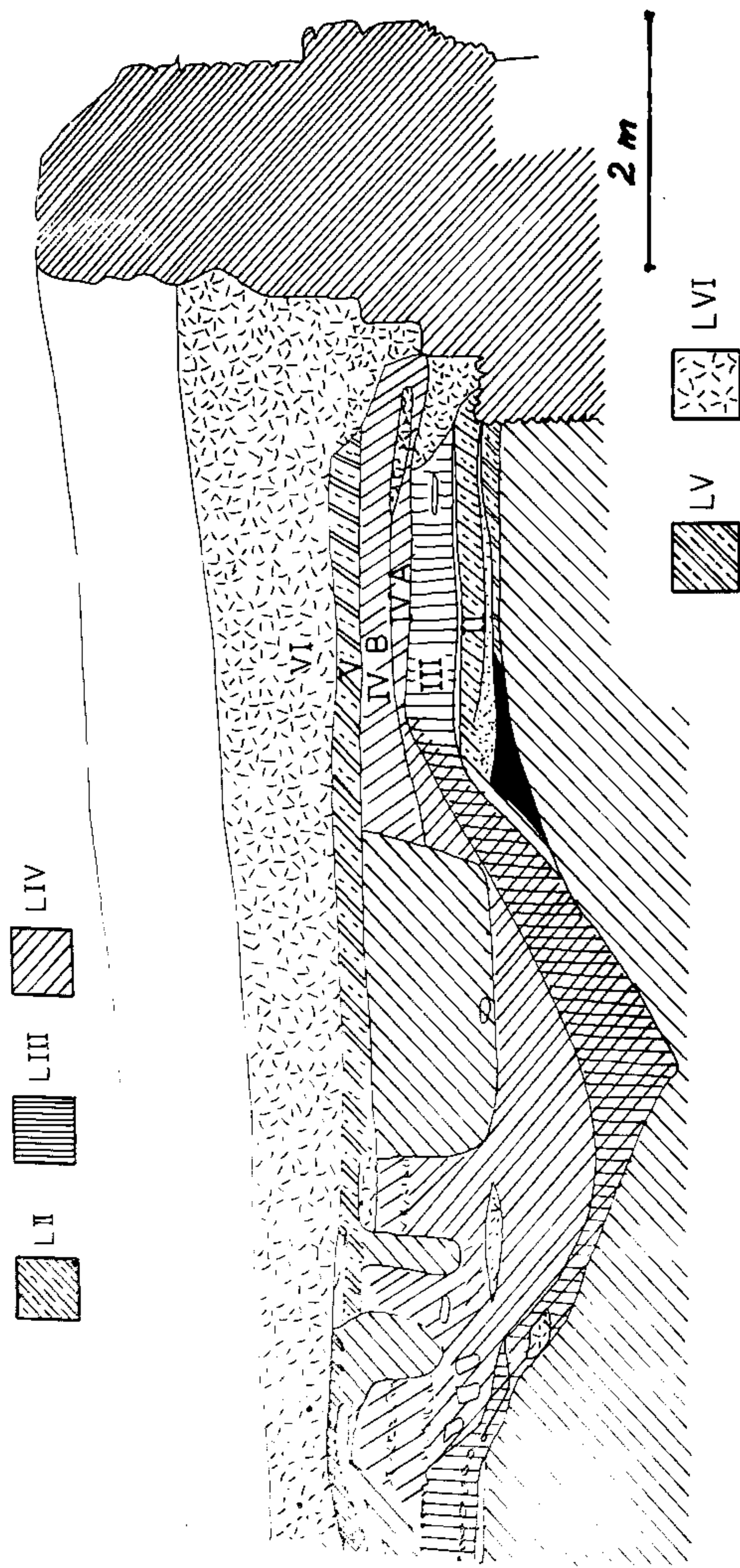


Plate XVII Tropaeum stratigraphical profile of section I.

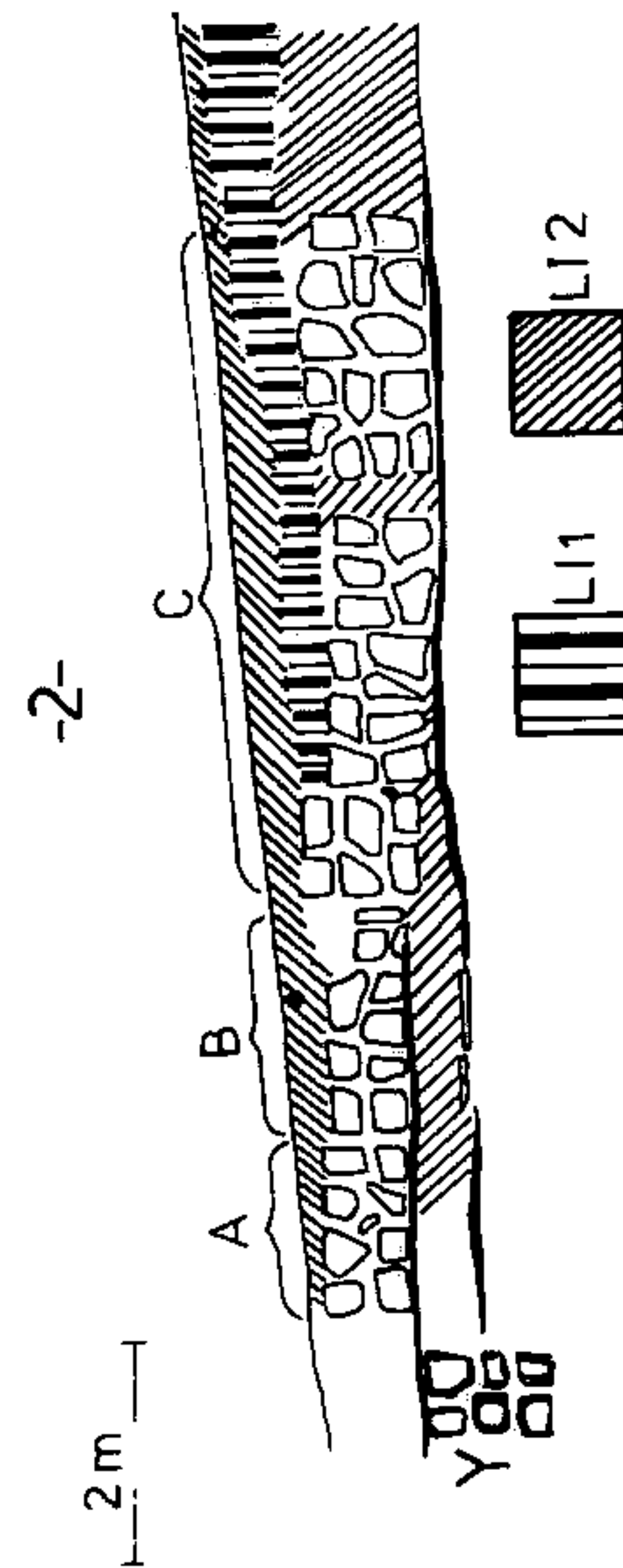
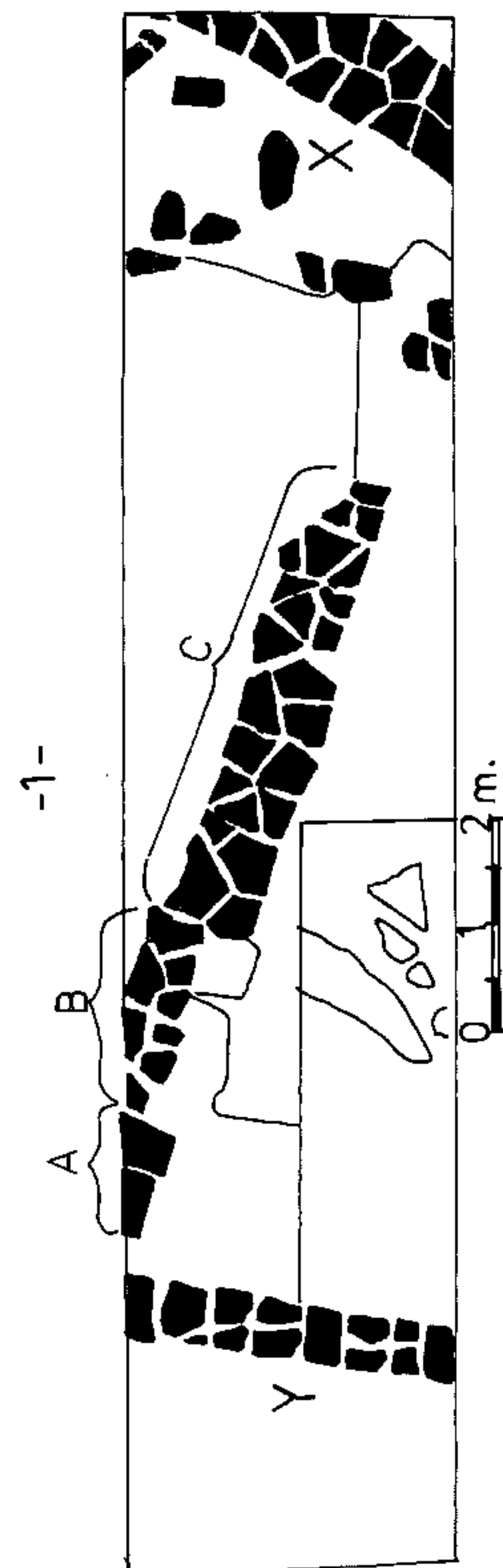


Plate XVIII Tropaeum—section C23. 1) plan. 2) profile.

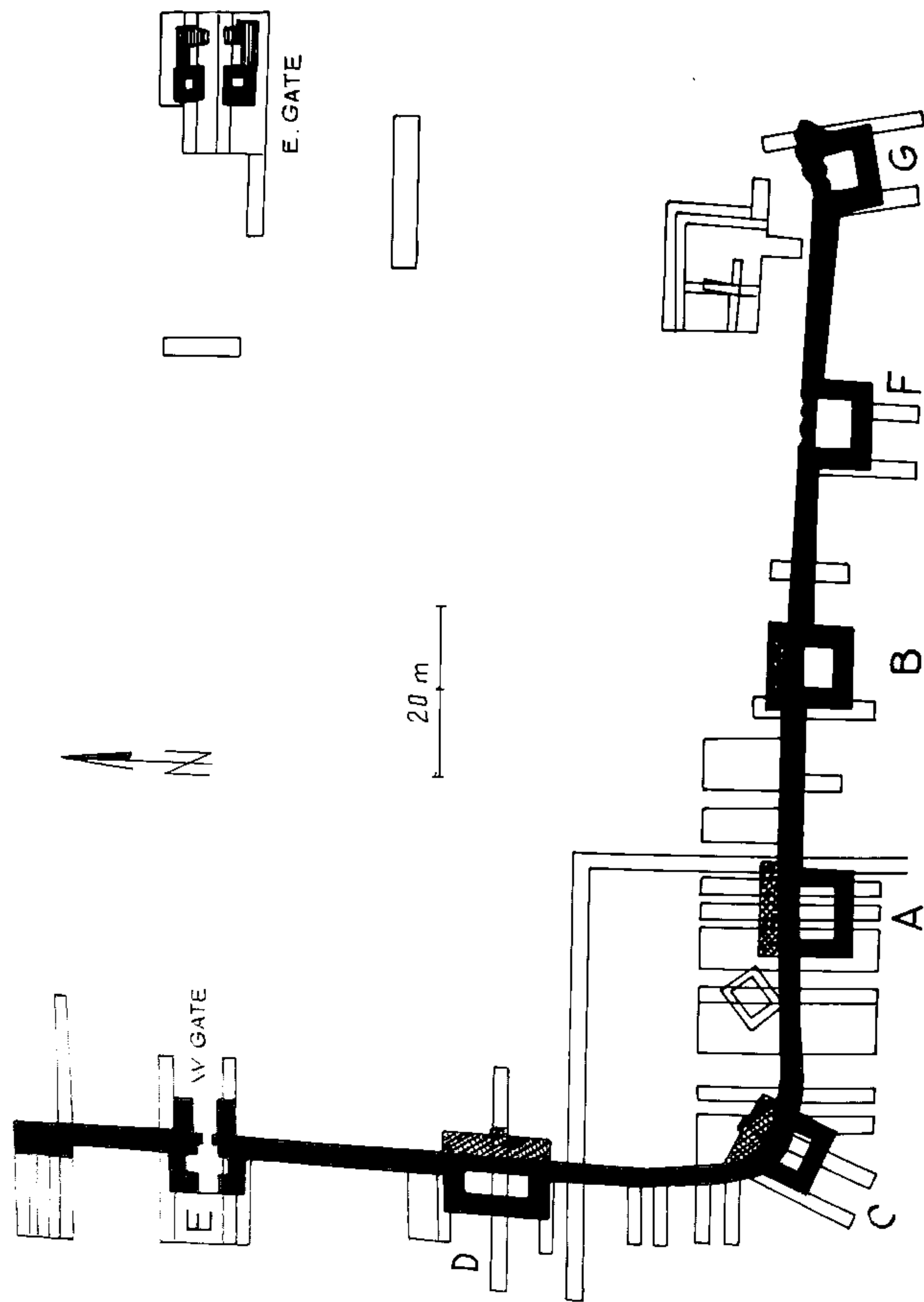


Plate XIX Plan of Sacidava.

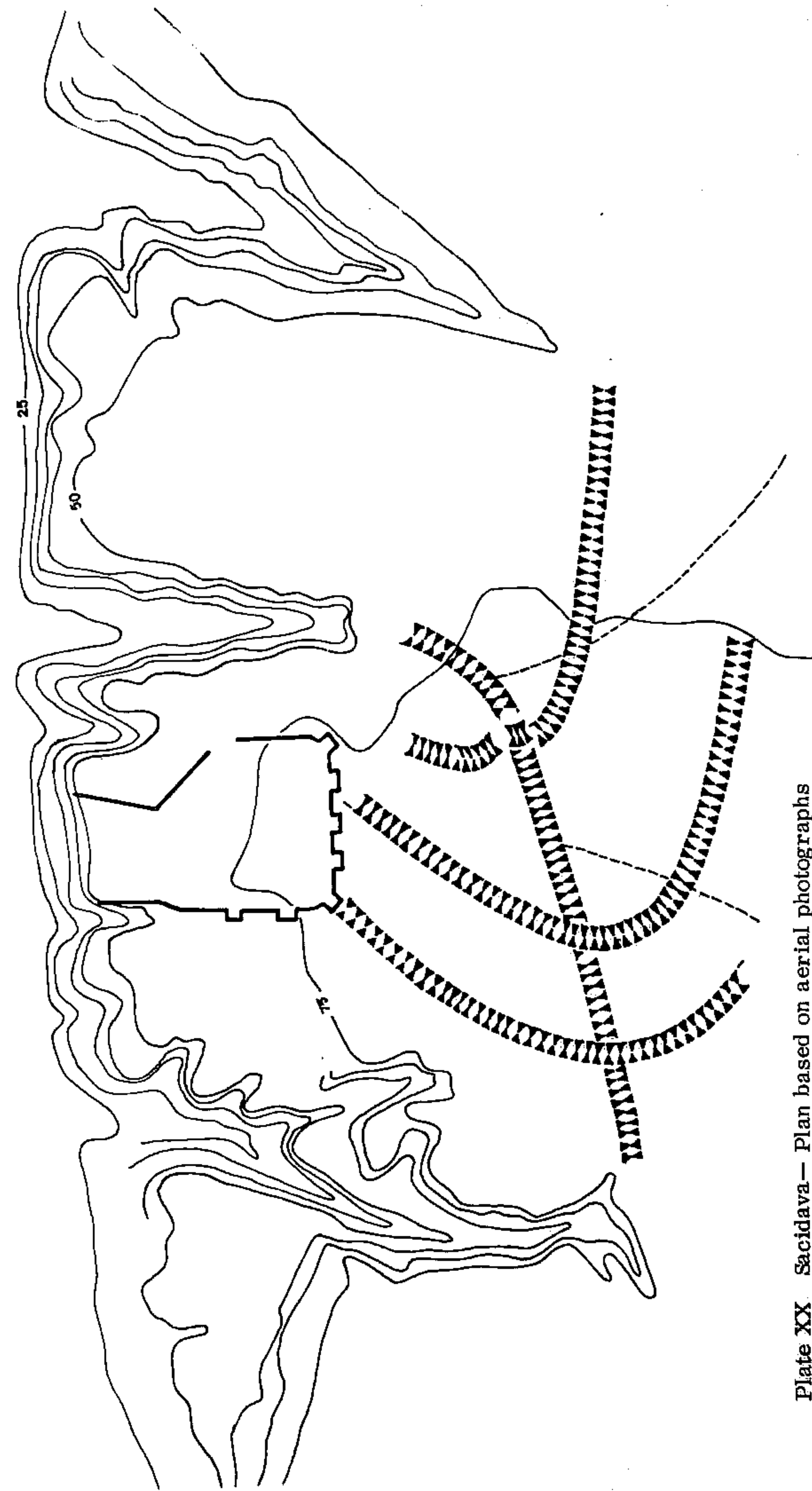


Plate XX Sacidava— Plan based on aerial photographs



Plate XXIII Sacidava—tower A.



Plate XXIV Sacidava—tower B.



Plate XXV Sacidava—tower D.



Plate XXVI Tower C of Sacidava.



Plate XXVII Tower D of Sacidava.

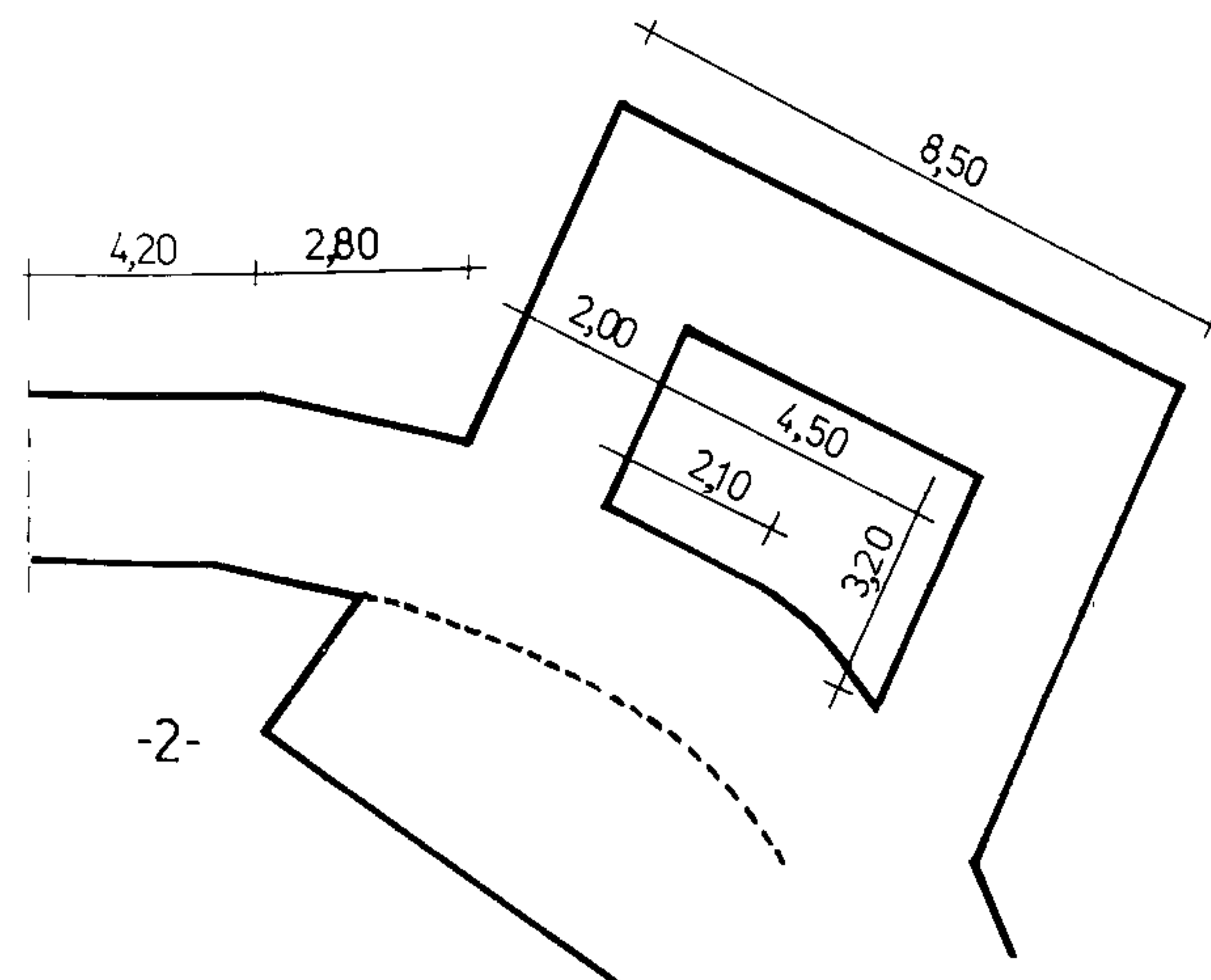
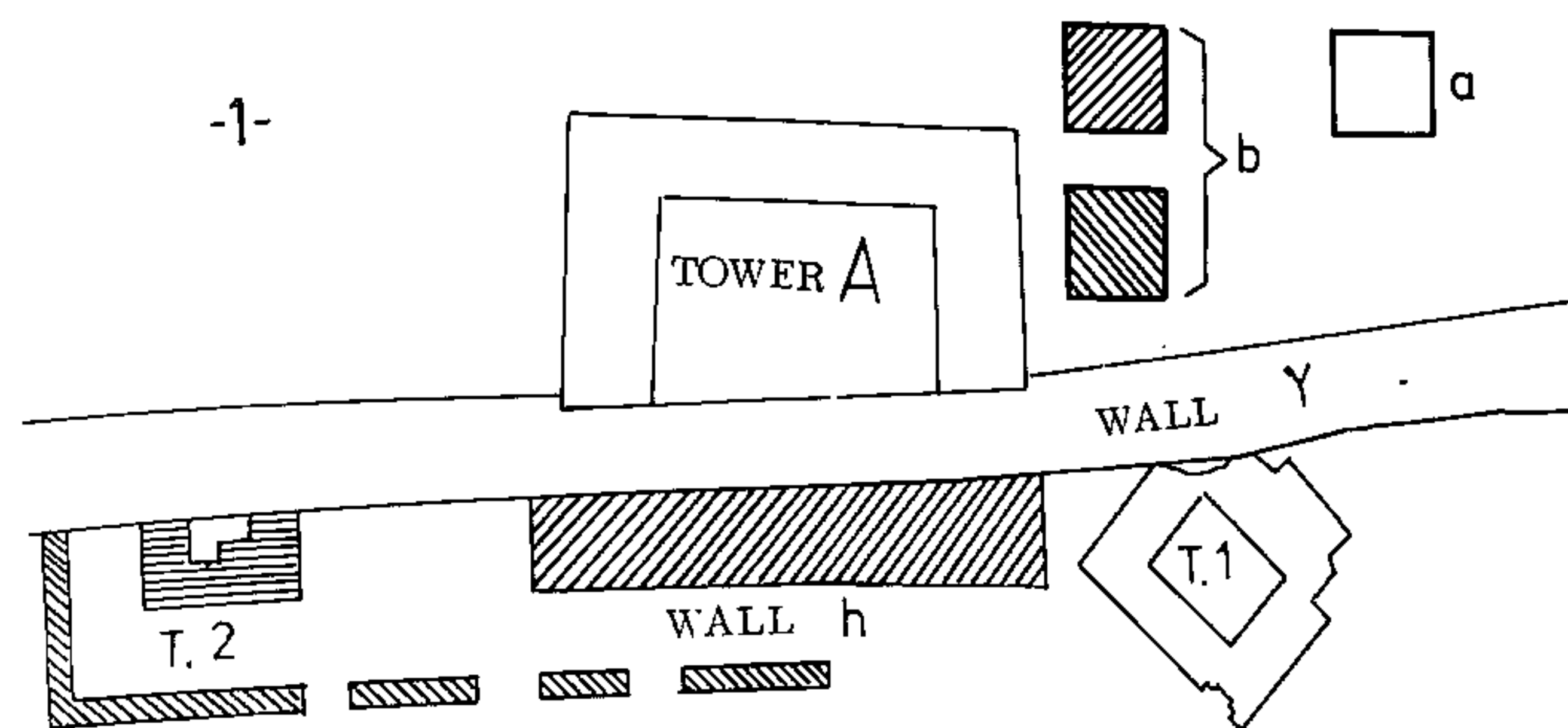


Plate XXVIII Sacidava. 1) tower A. 2) tower C. a) 4th-5th century. b) 6th century.



Plate XXIX Sacidava, Tower B.

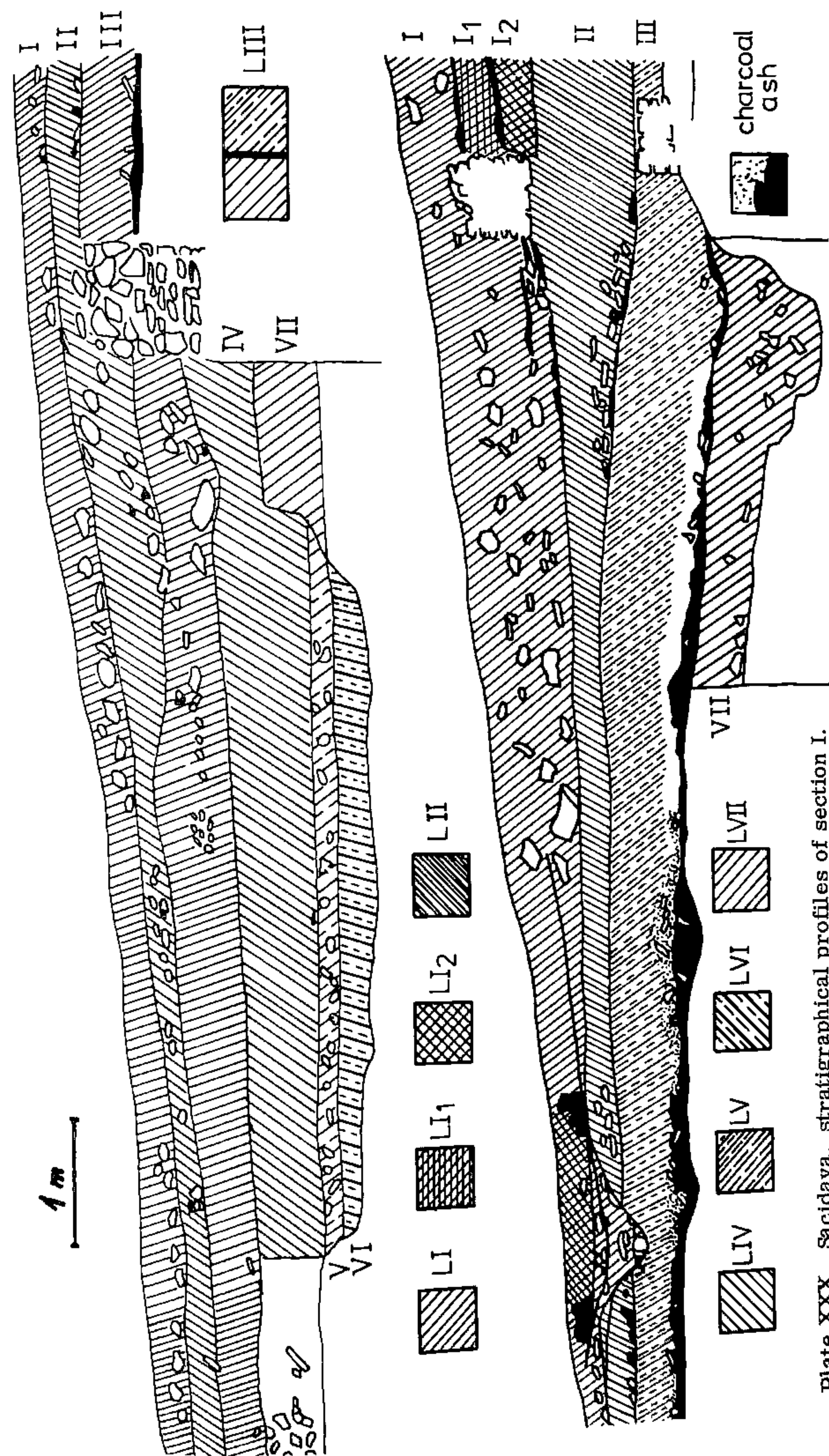


plate XXX Sacidava, stratigraphical profiles of section I.

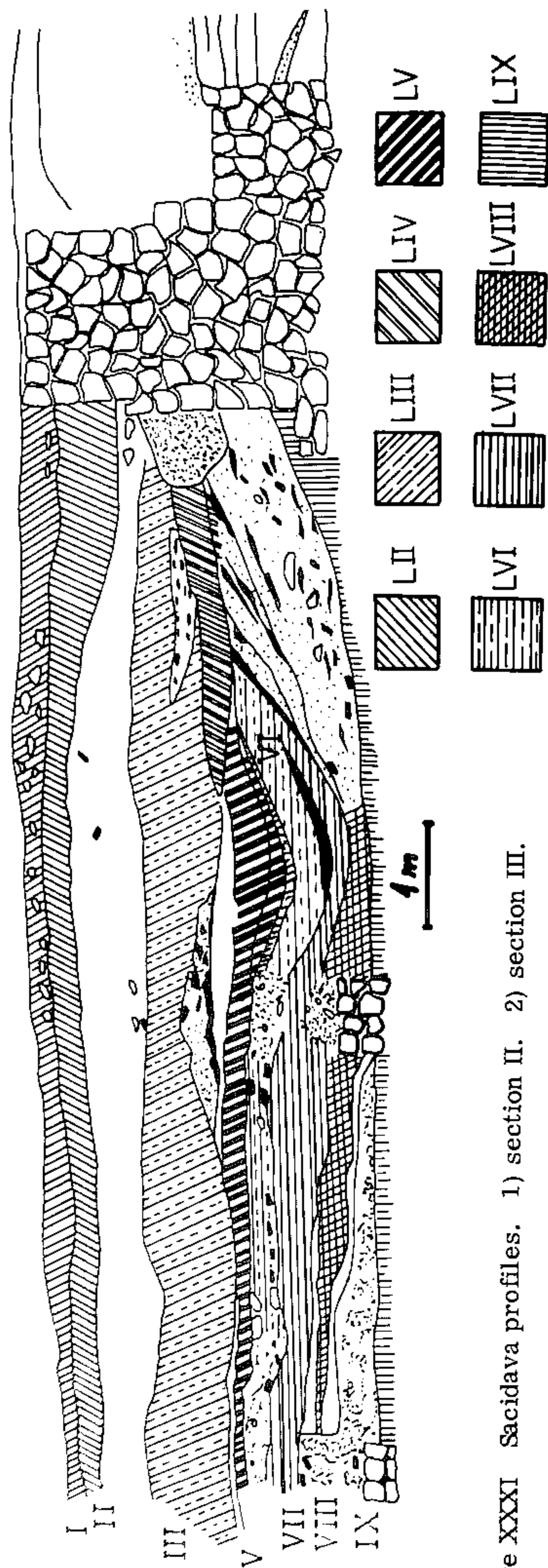


Plate XXXI Sacidava profiles. 1) section II. 2) section III.

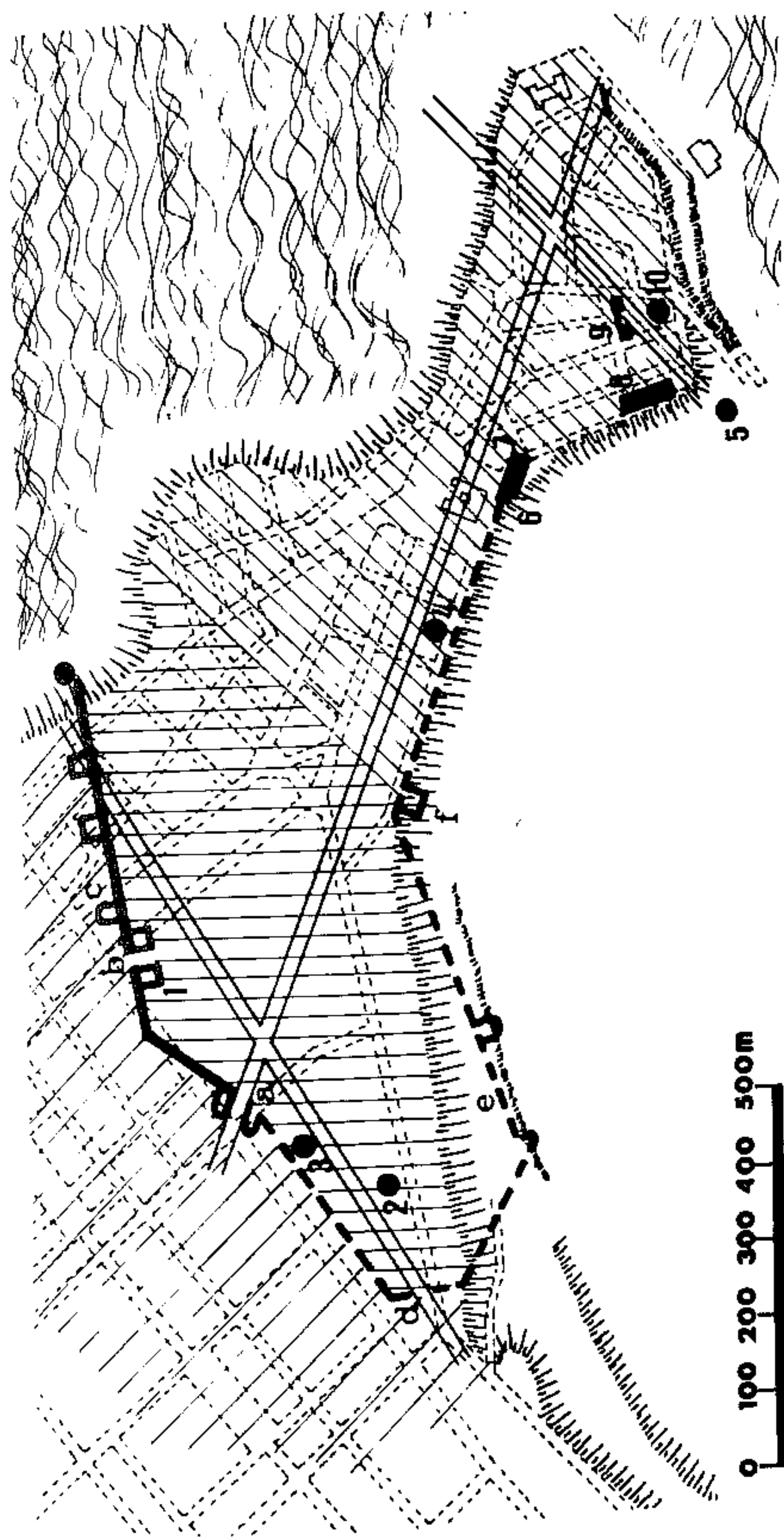
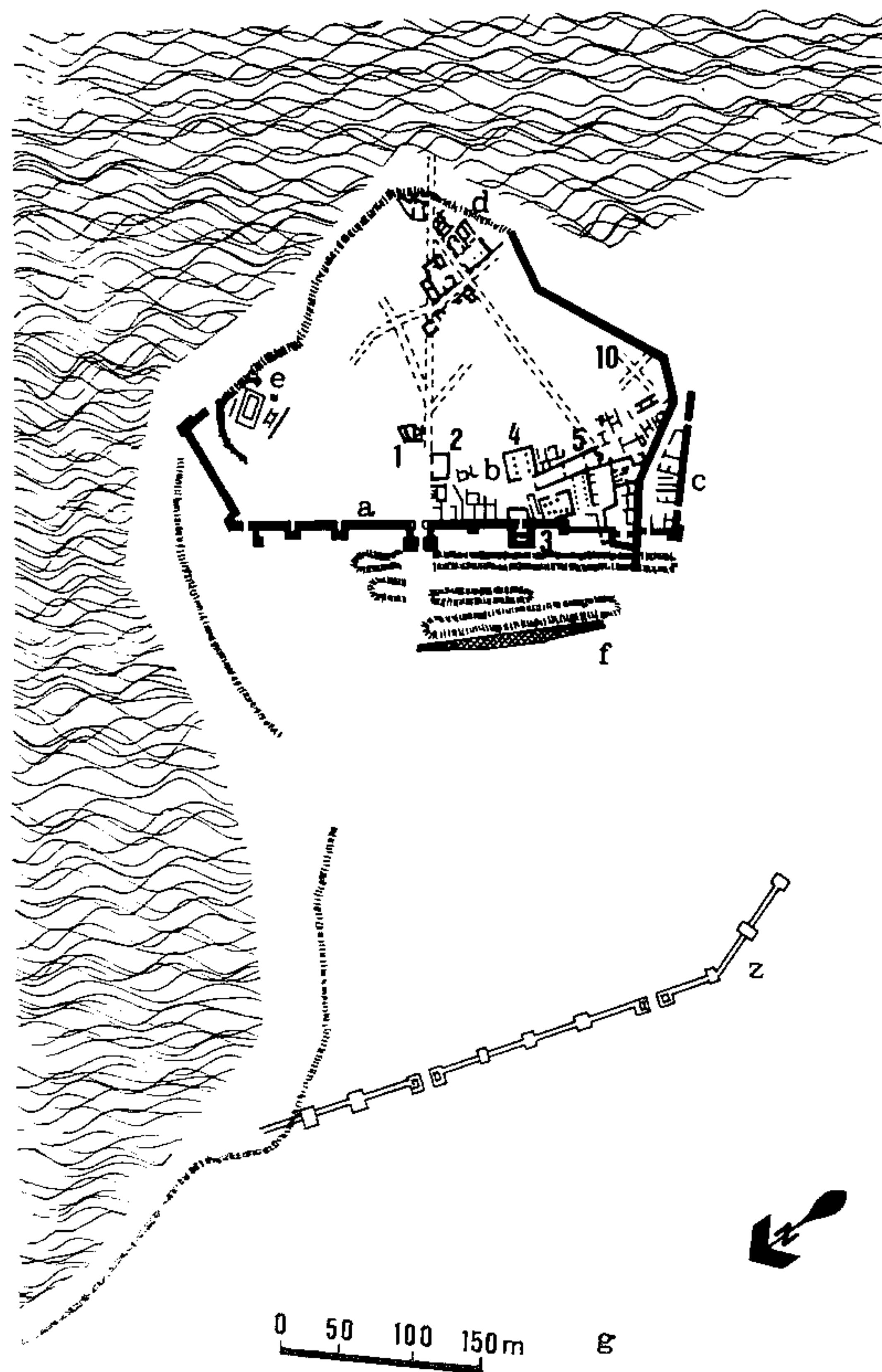
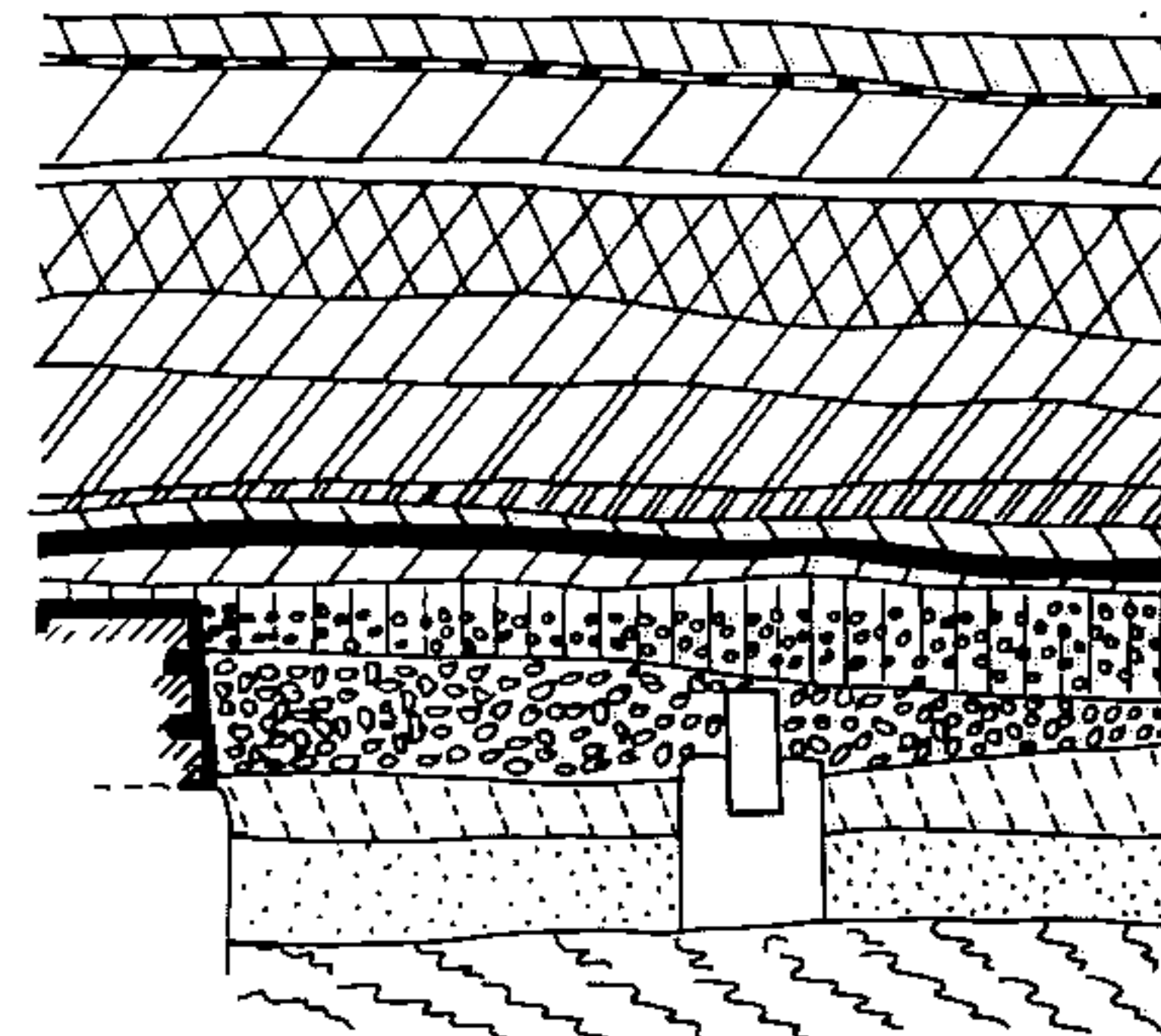


Plate XXXII Tomis—plan of the defences (4th-6th century)

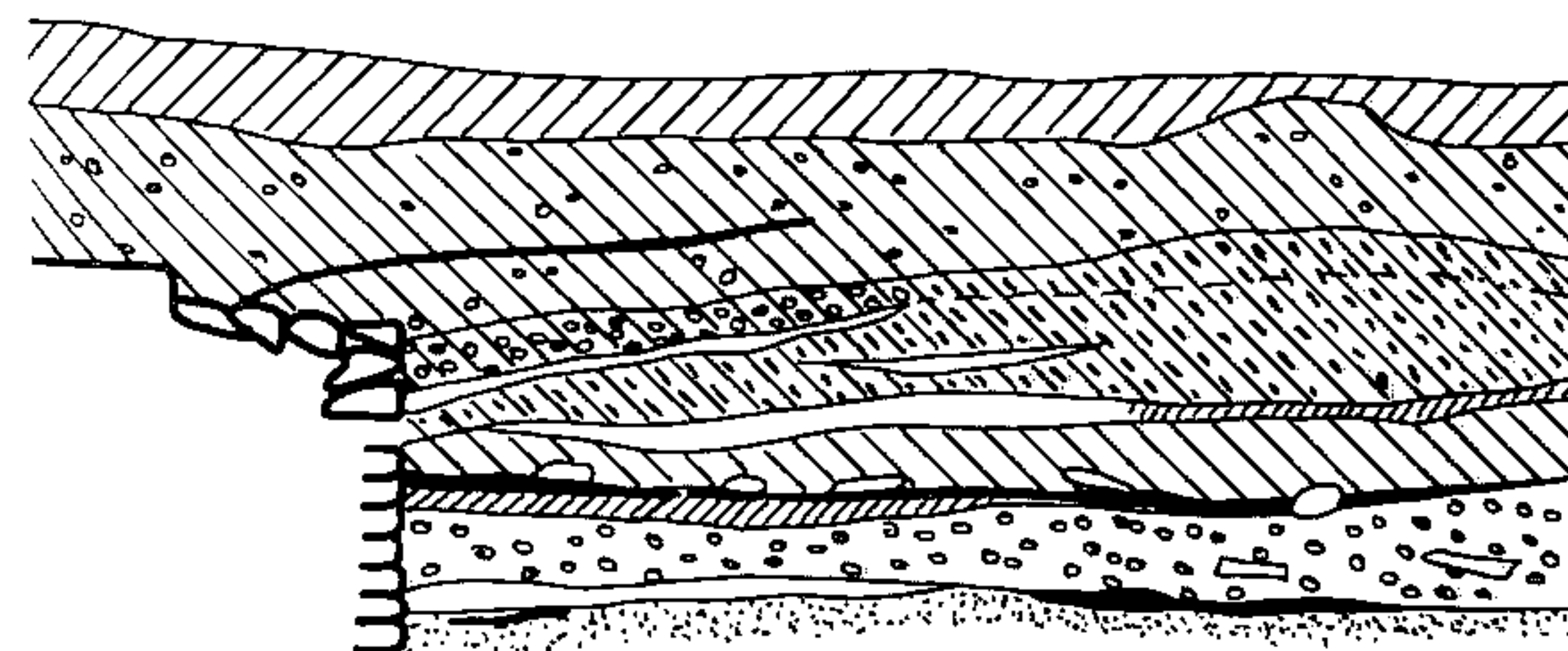


Histria—plan of the late Roman defences.

- 1 -



- 2 -



1m



Plate XXXV Histria— sections 1) sector T. 2) sector ER.

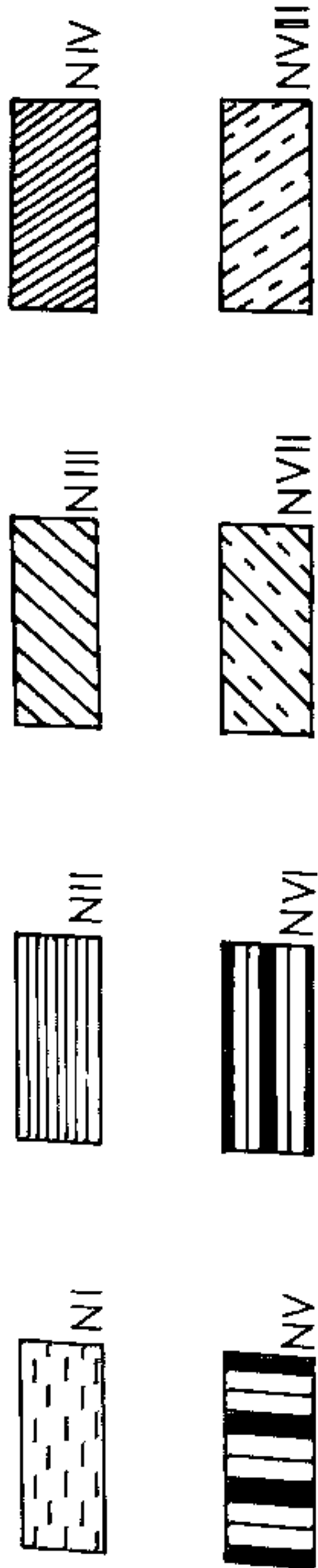
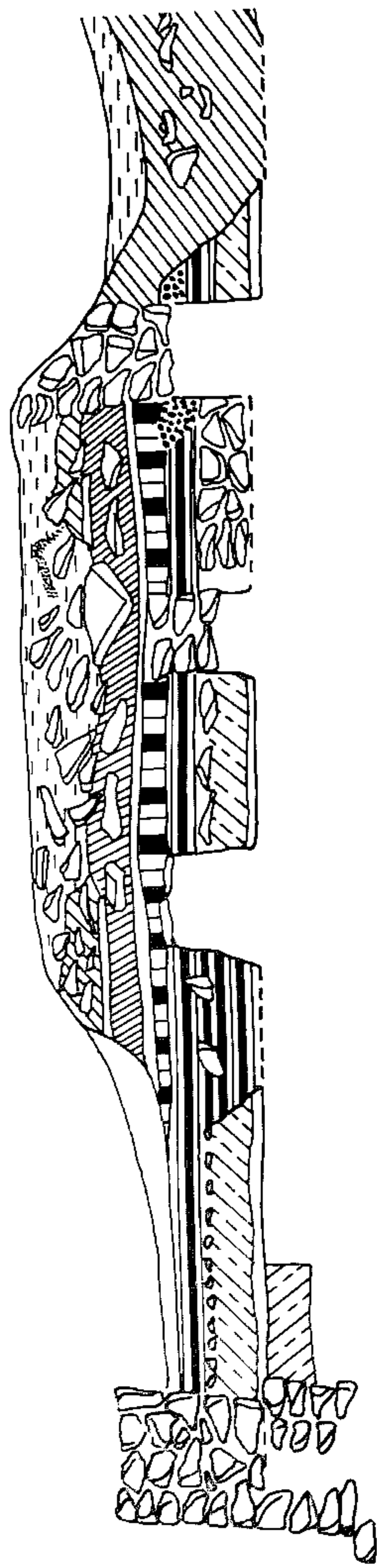


Plate XXXVI Histria. Stratigraphical profile of SA--North, sector central.

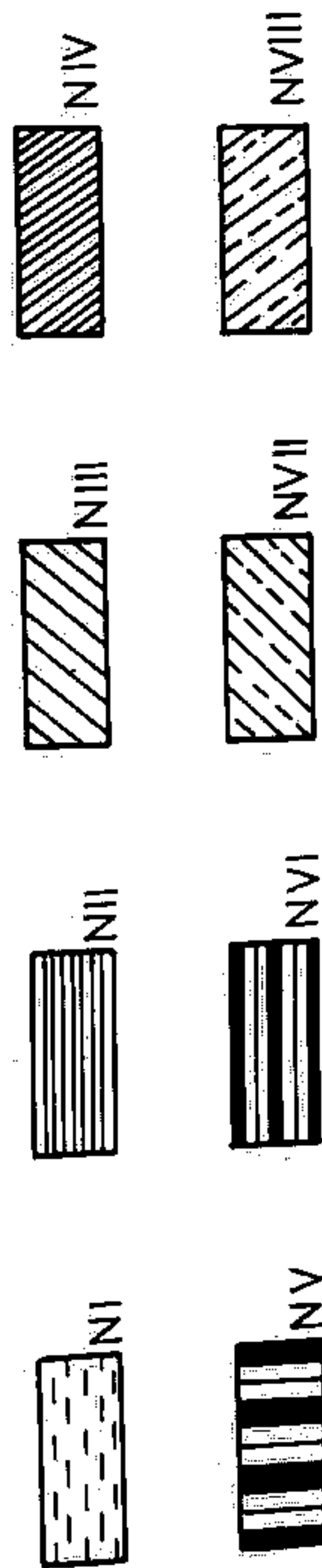
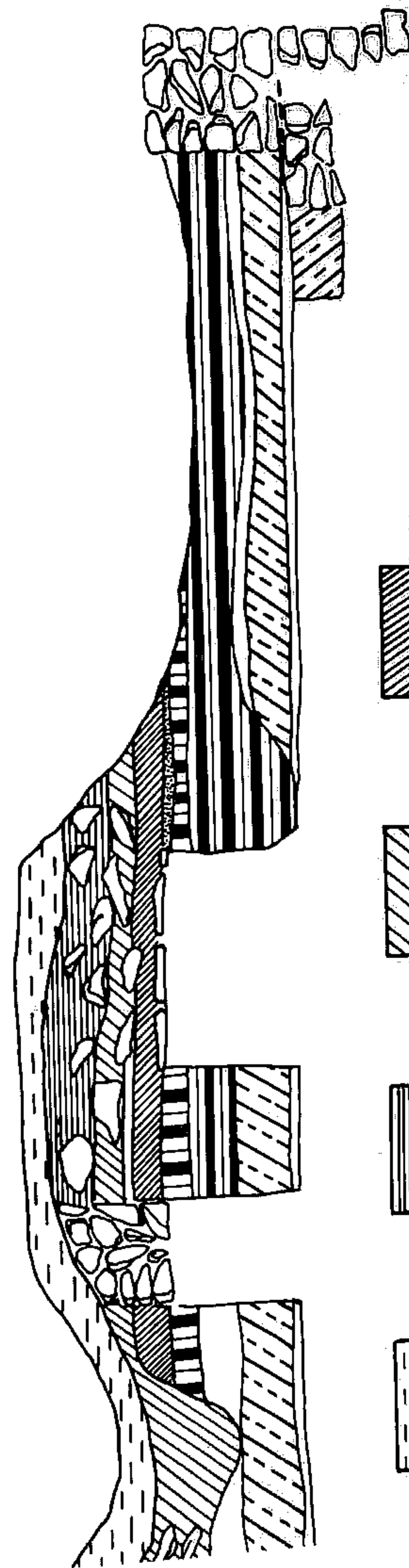


Plate XXXVII Histria. Profile SA--South, central sector

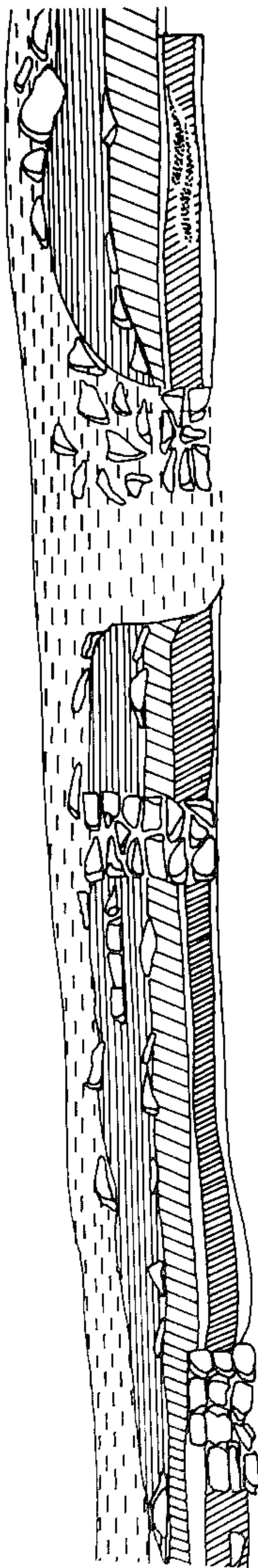


Plate XXXVIII Histria. Profile SB—East, central sector

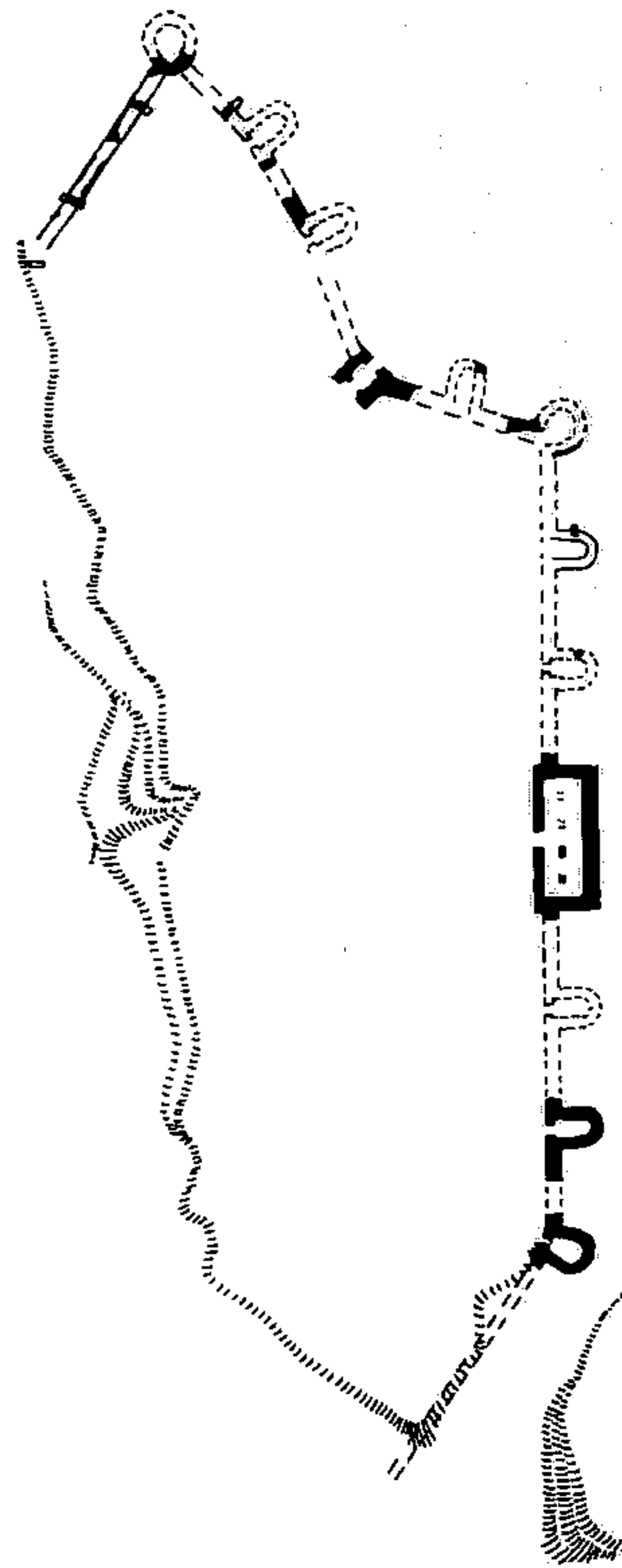


Plate XXXIX Iatrus—plan.

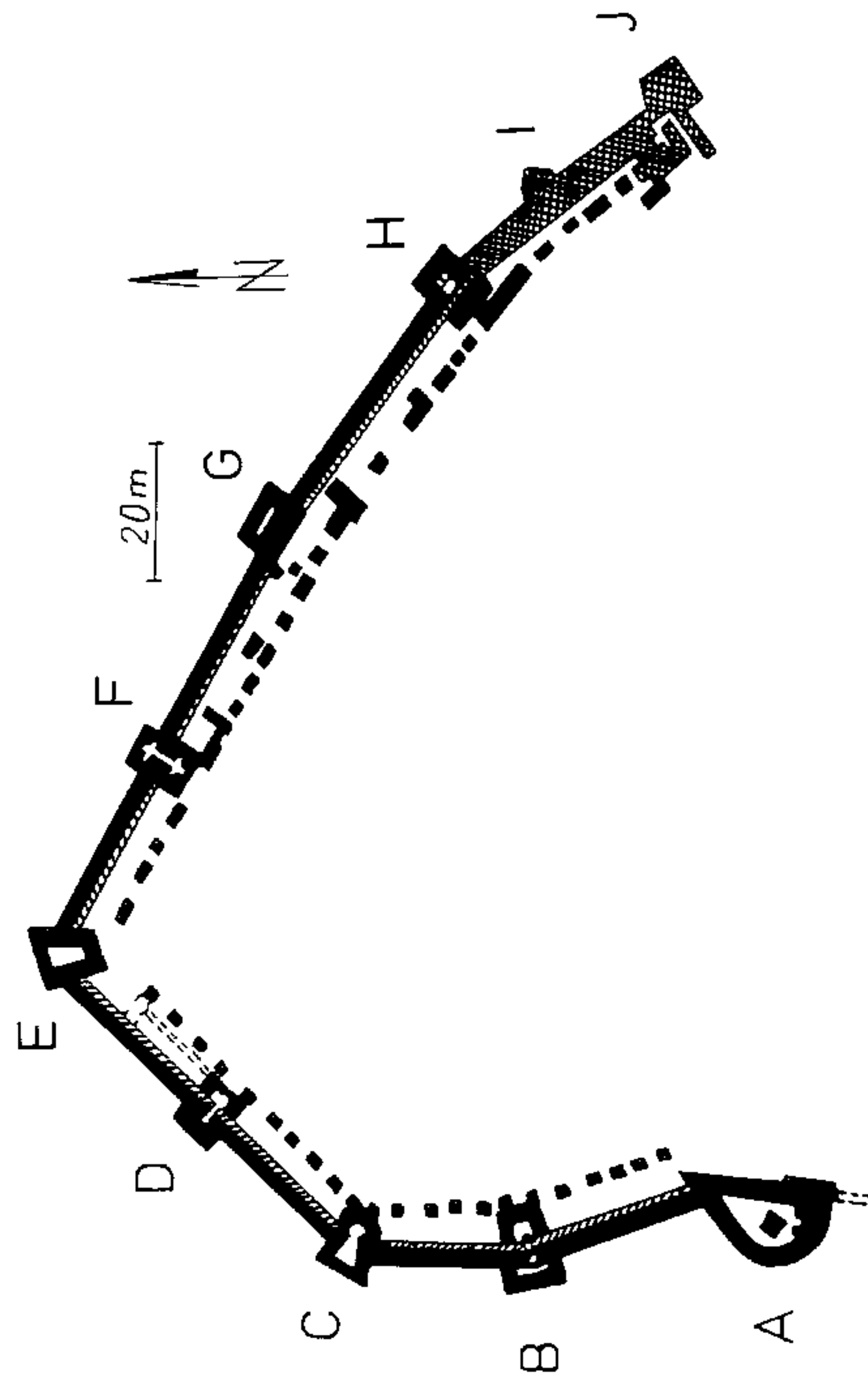


Plate XL Sucidava (Celei)—plan.

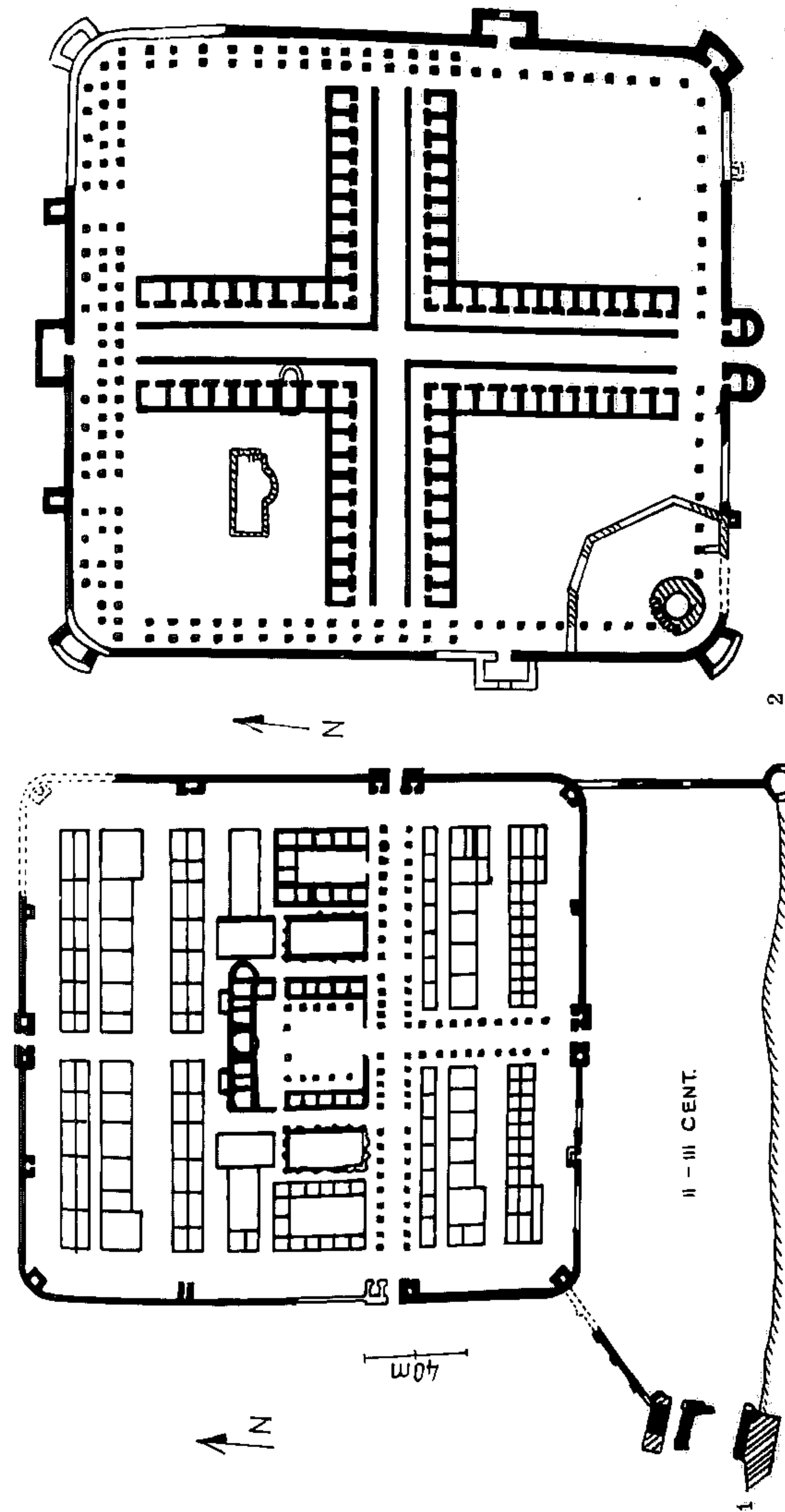
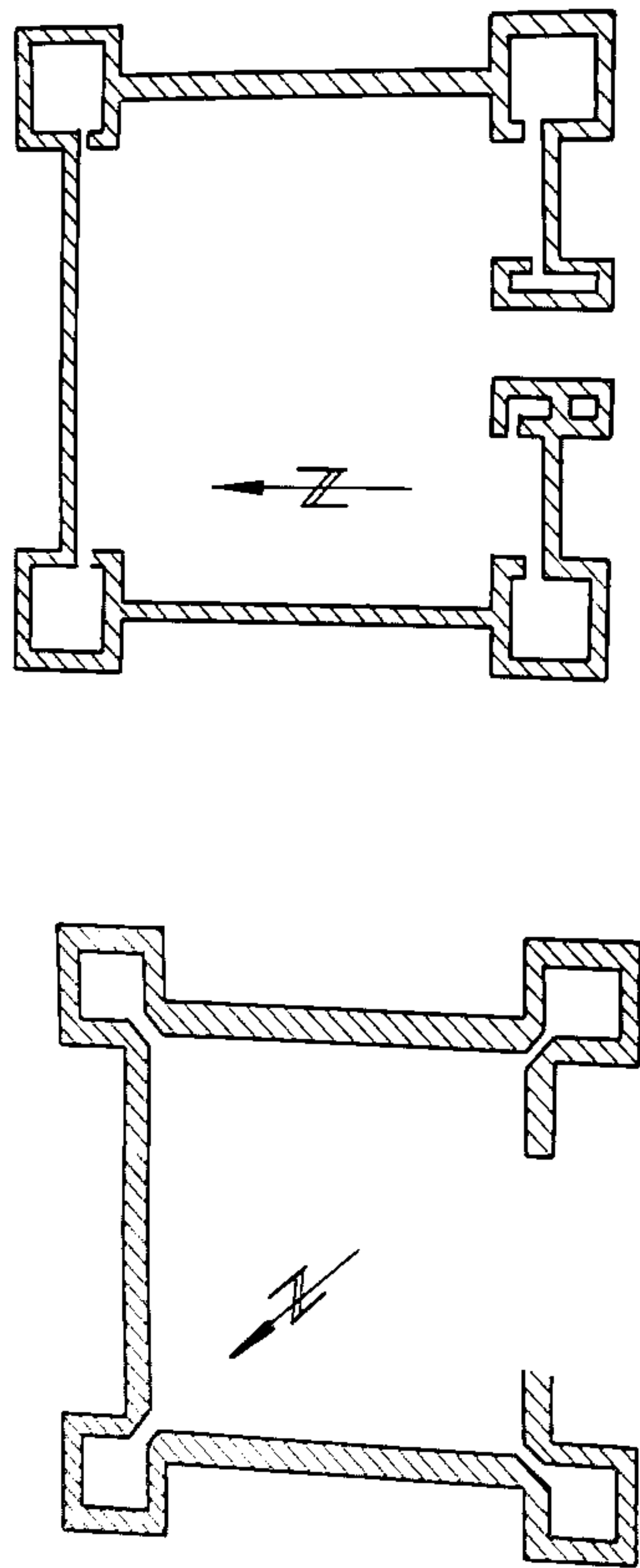


Plate XLI Drobeta. 1) 2nd-3rd century. 2) 5th century.



-1-

-2-

Plate XLII Quadriburgia. 1) Orşova. 2) Gornea.

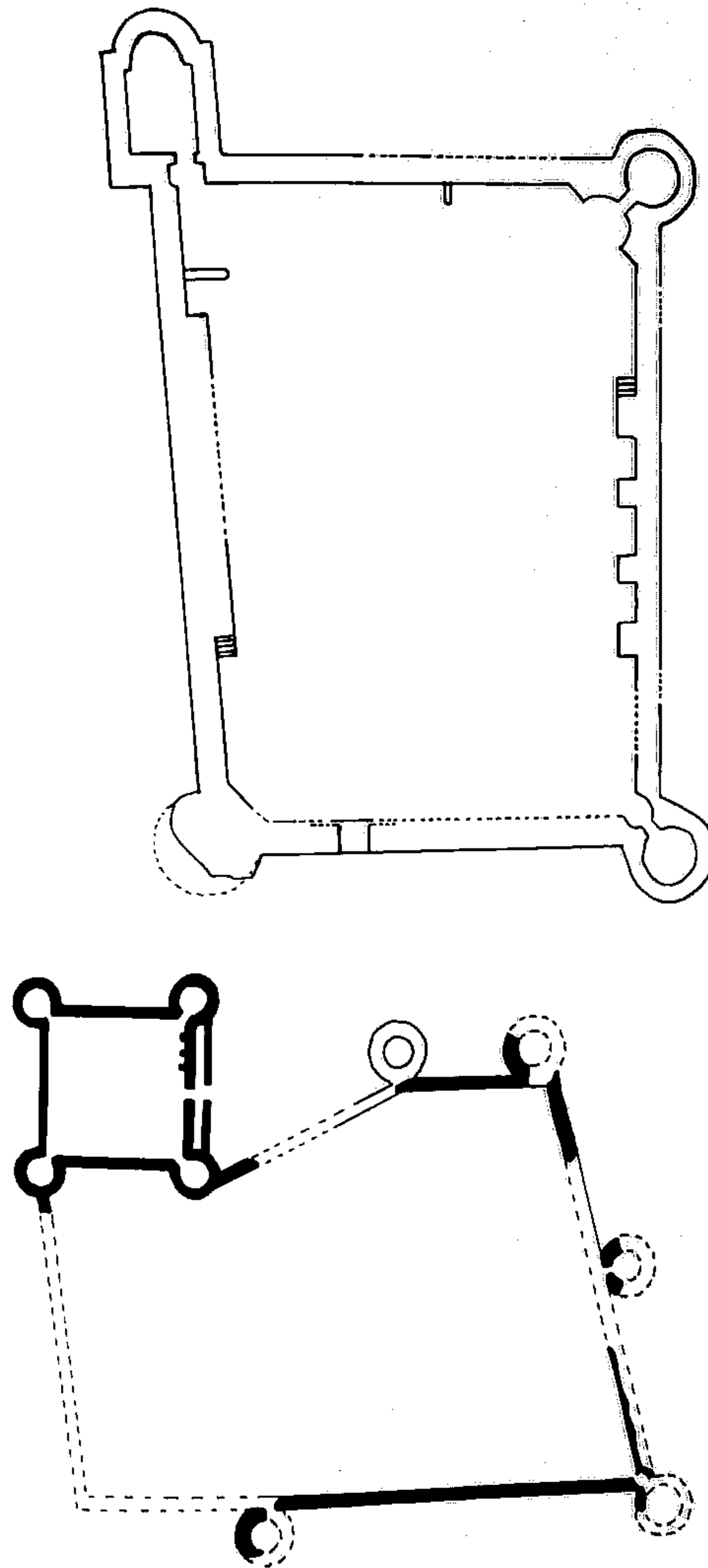


Plate XLIII 1) Castra Martis. 2) Saldum.

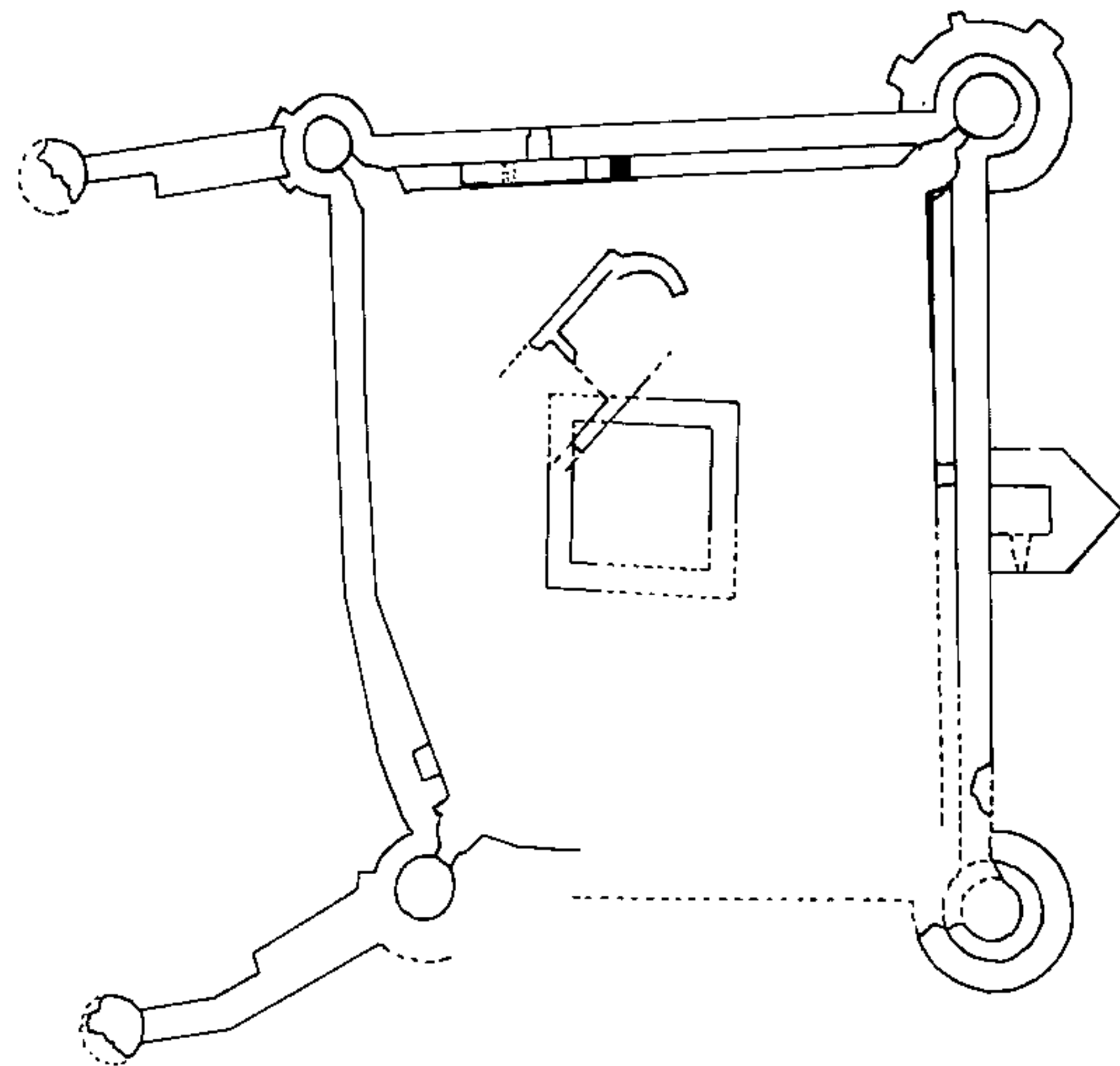
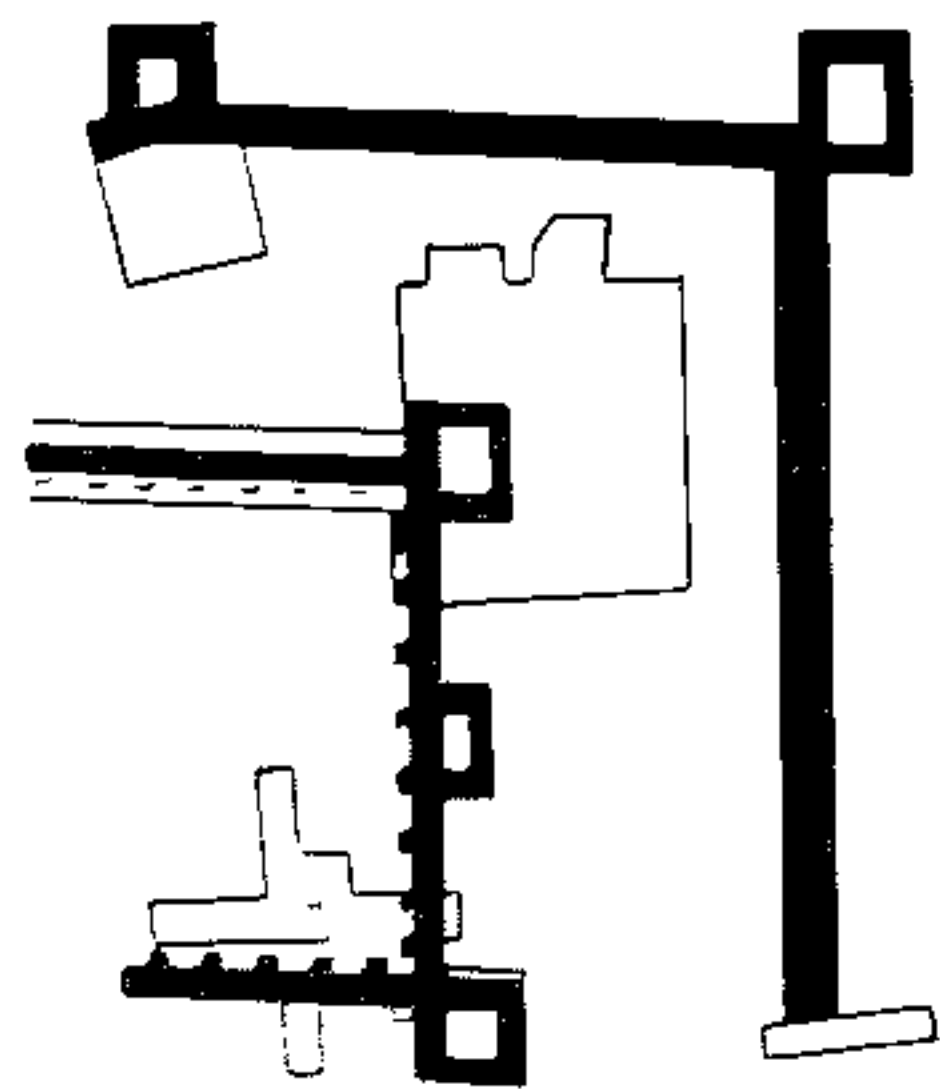


Plate XLIV 1) Nova Cerna. 2) Hajdučna Vodenica.

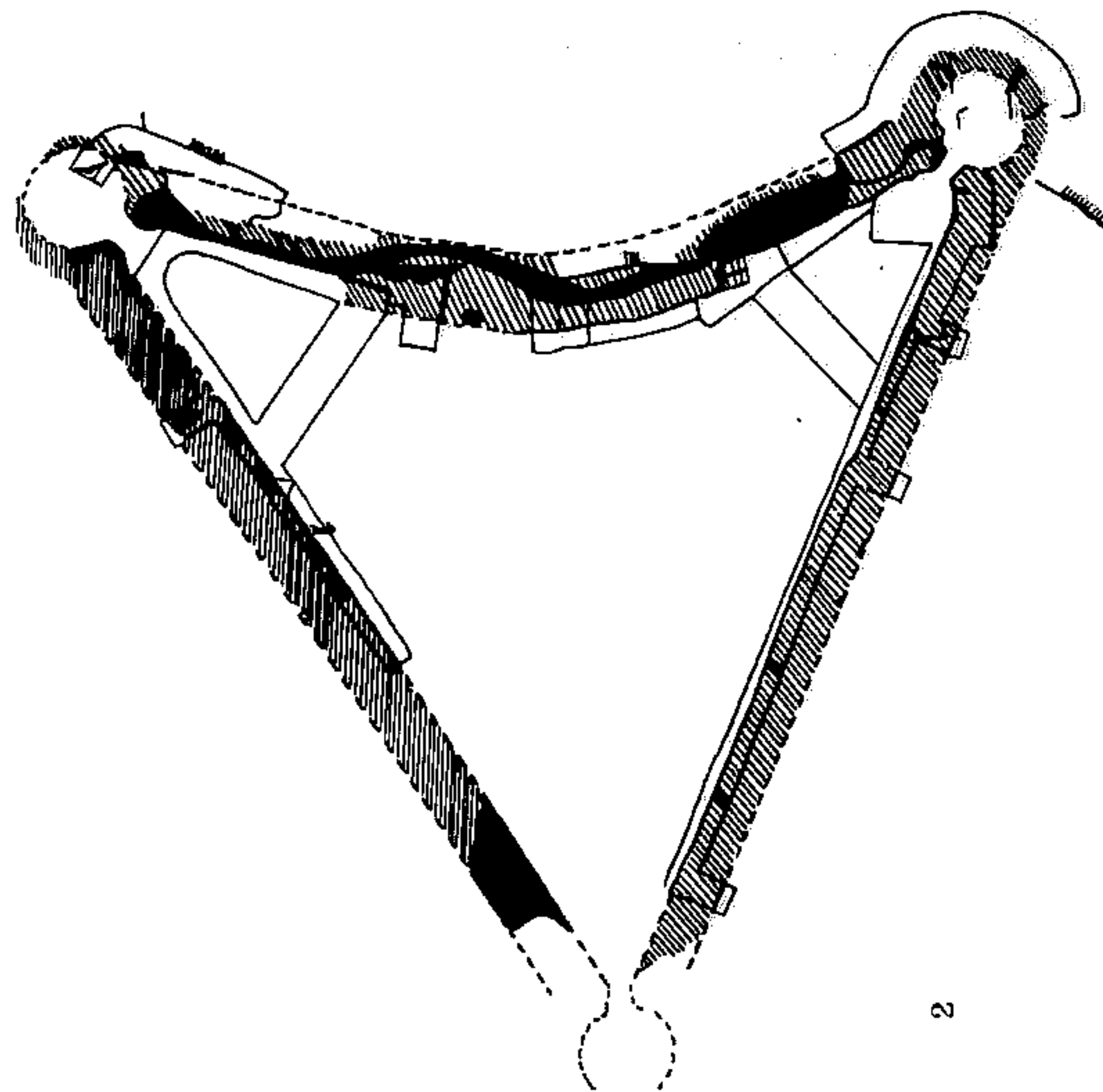
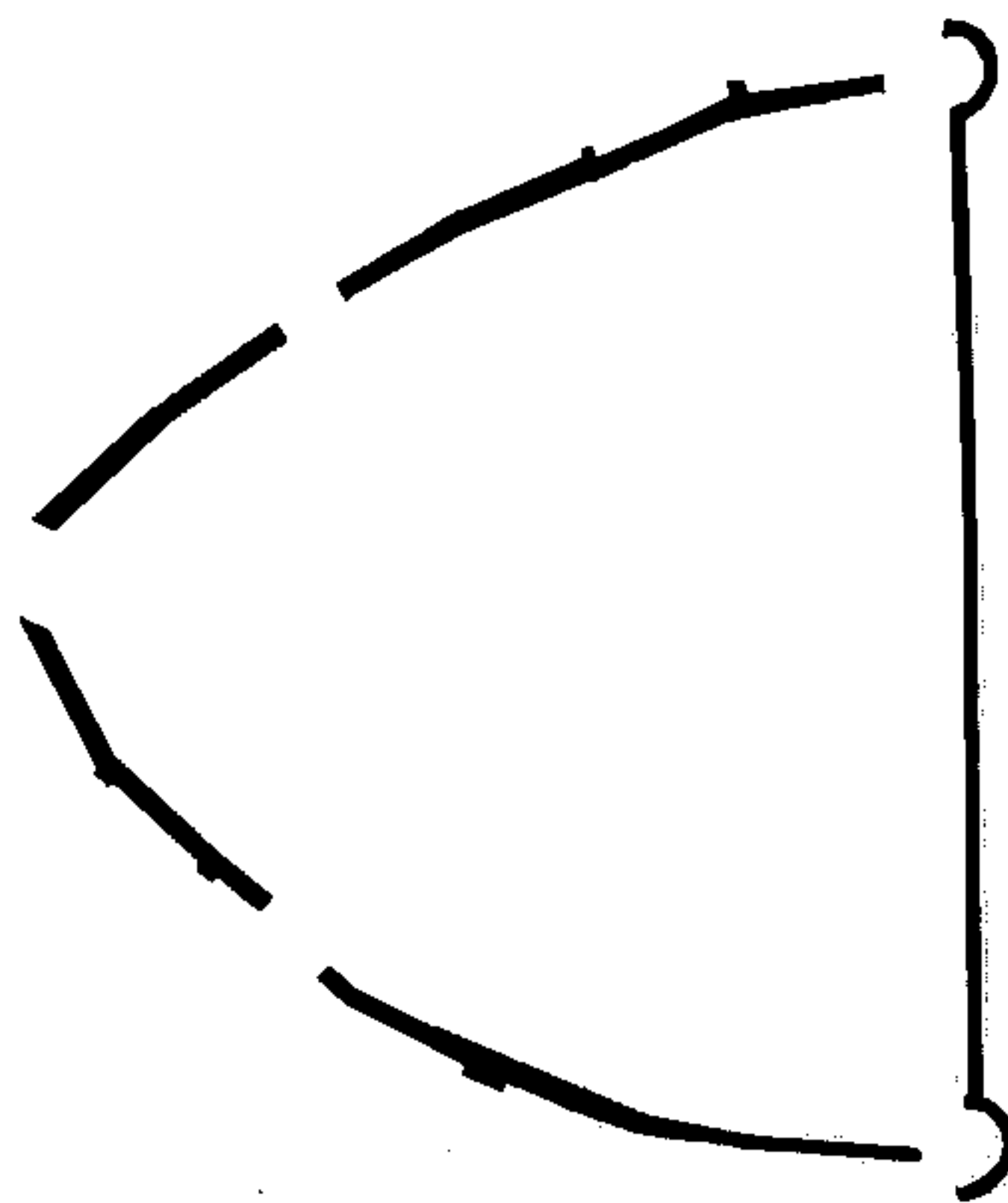
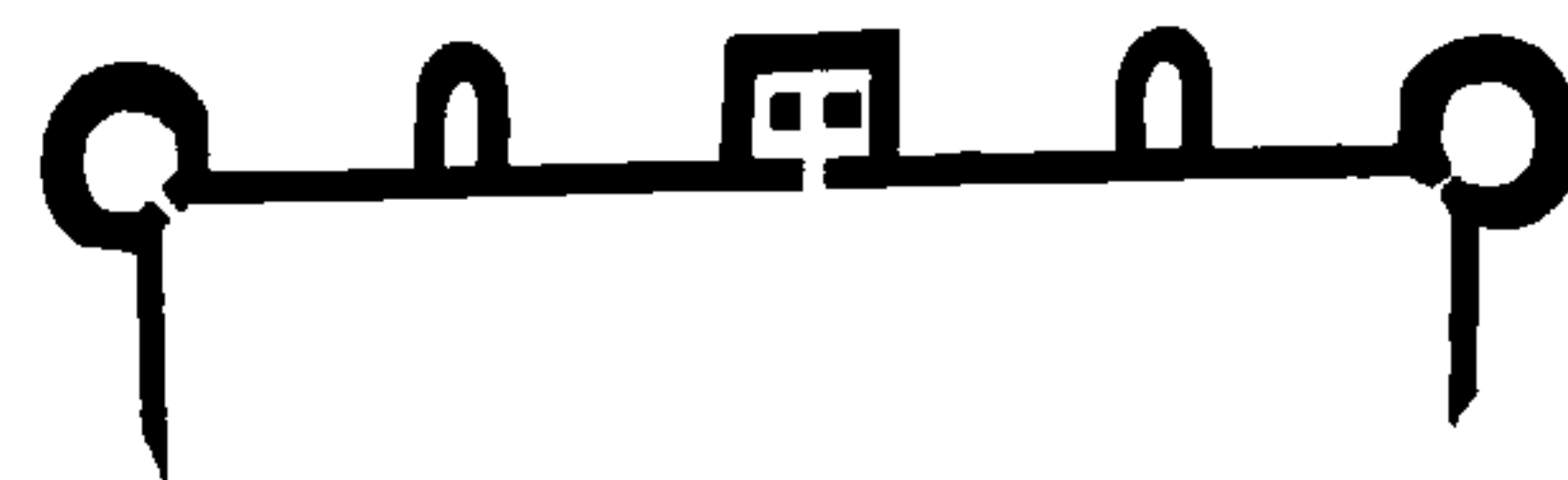


Plate XLV 1) Insula Banului. 2) Bosman.



1



2



3



4



5

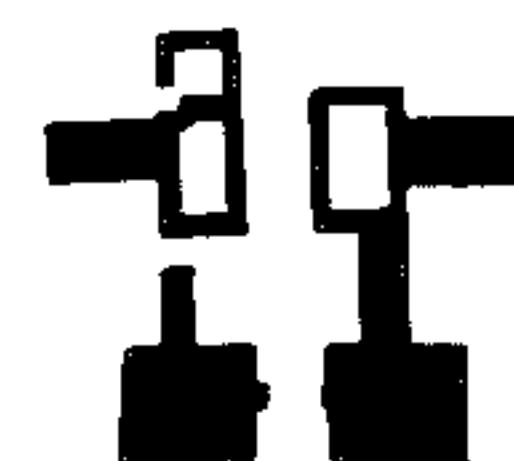


6

Plate XLVI Frontal sides of some fortresses: 1) Troesmis-East. 2) Capidava. 3) Libida I. 4) Libida II. 5) Tropaeum Traiani-West side. 6) Ulmetum.



1



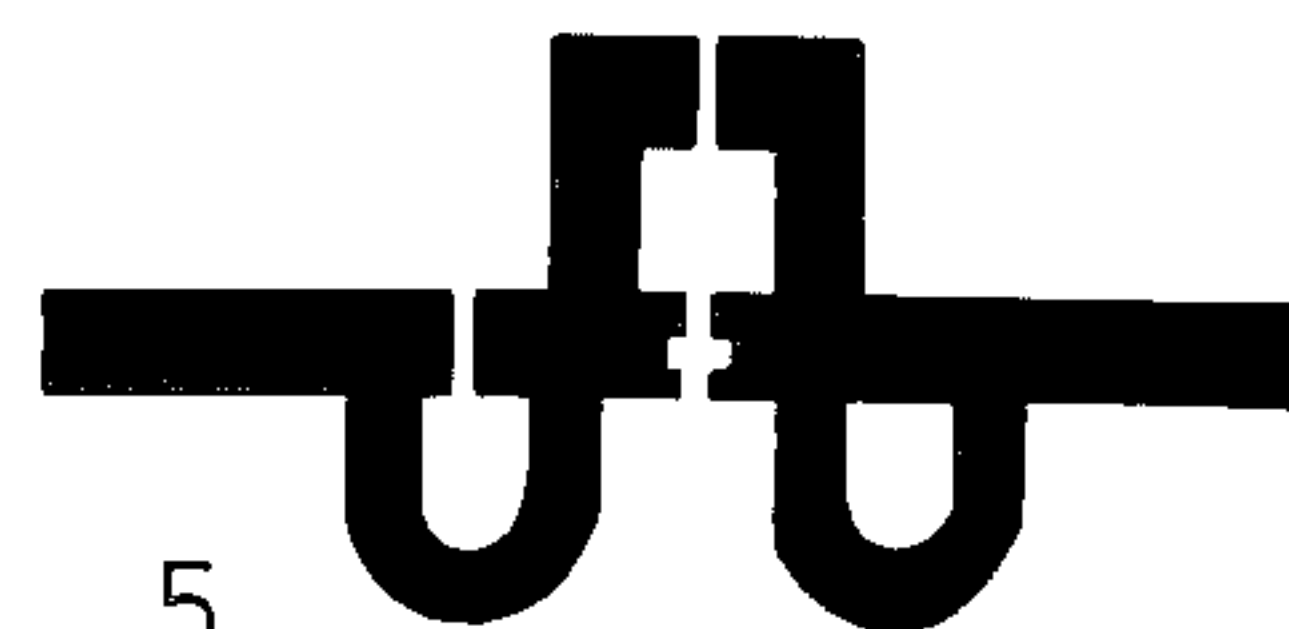
2



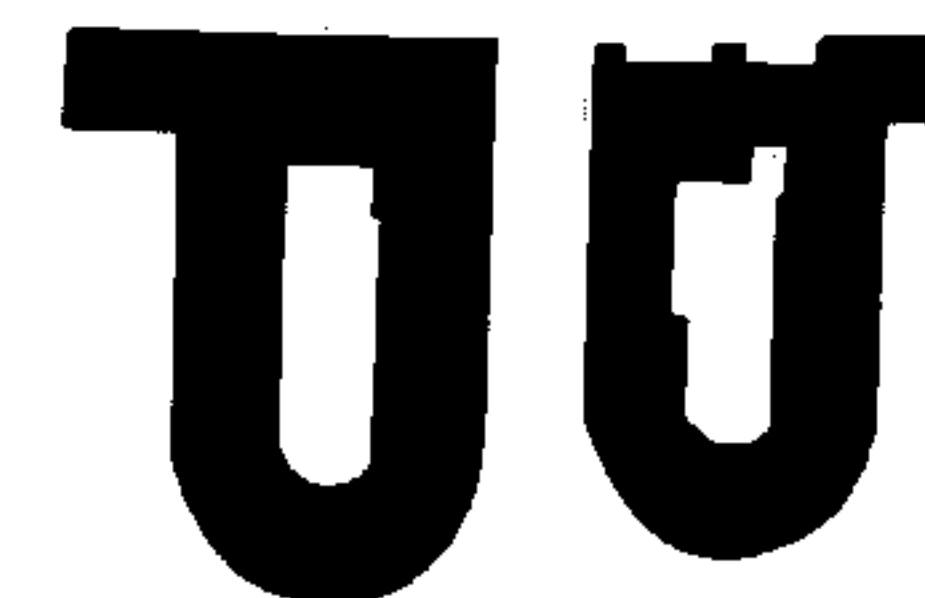
3



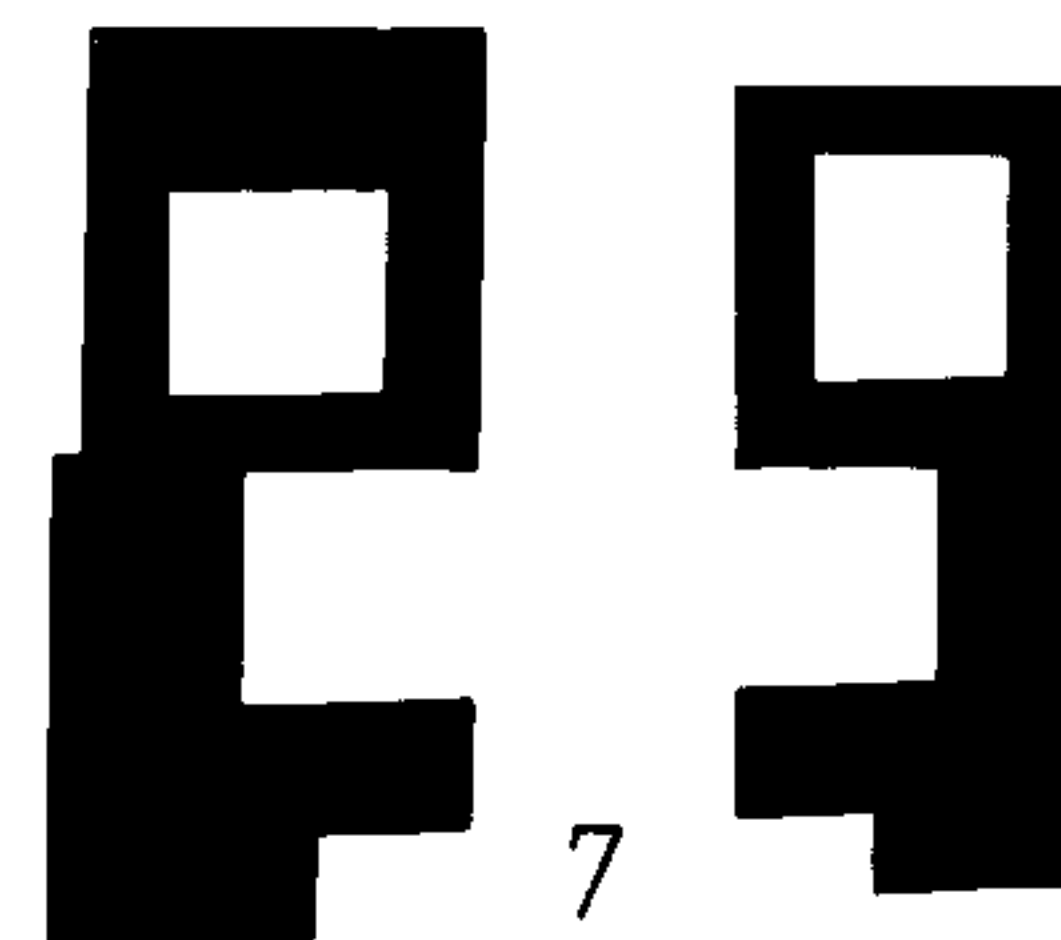
4



5



6



7

Plate XLVII. Gates: 1) Ulmetum 2) Histria 3) Capidava 4) Novae 5) Dinogetia 6) Tropaeum-East gate 7) Sacidava-East gate.

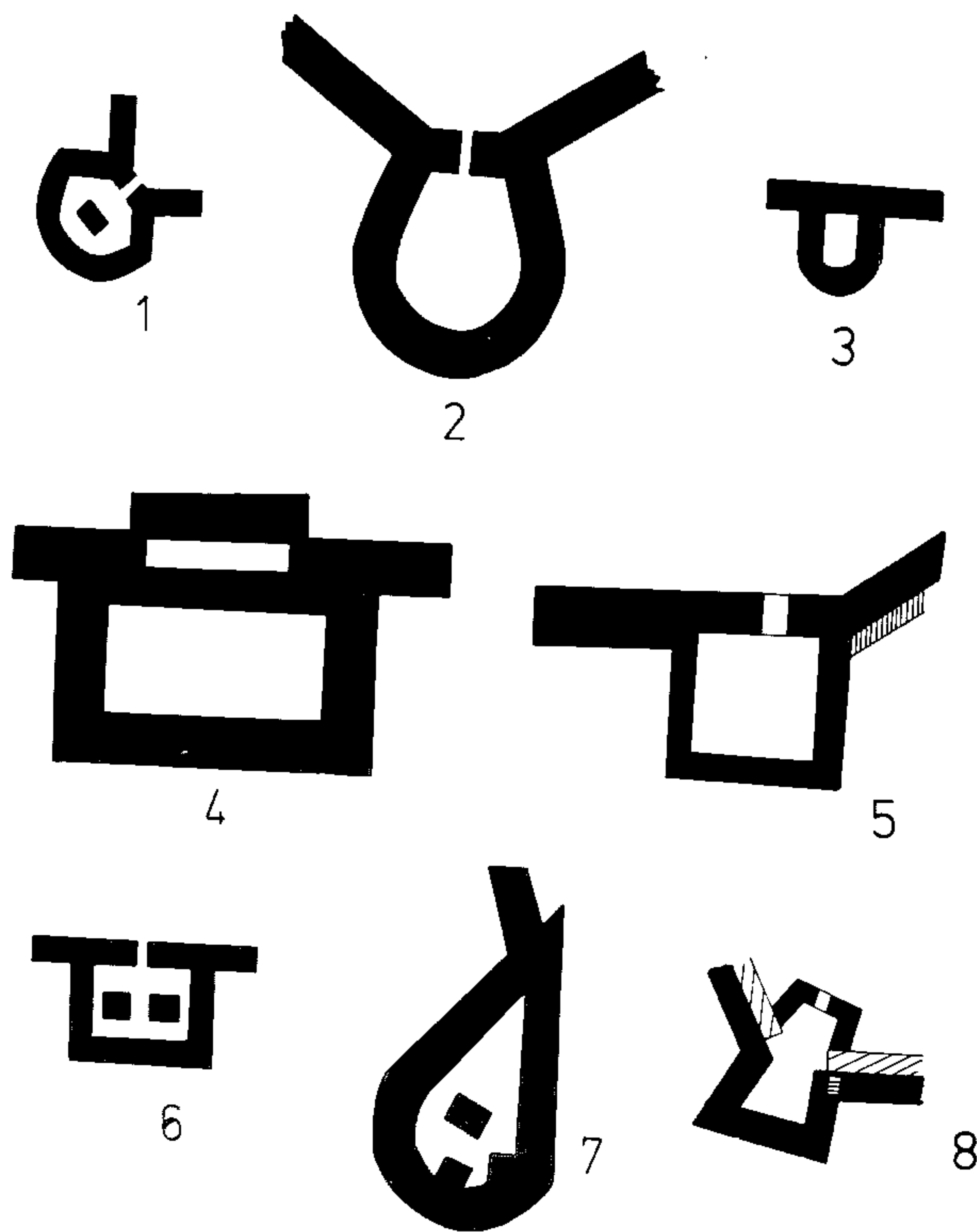


Plate XLVIII. Towers of some fortresses: 1) Capidava 2) Tropaeum
3) Capidava 4) Sucidava 5) Novae 6) Capidava
7, 8) Sucidava.



Plate XLIX Route of Invasion of A. D. 170



Plate L Route of Invasion of A.D. 295

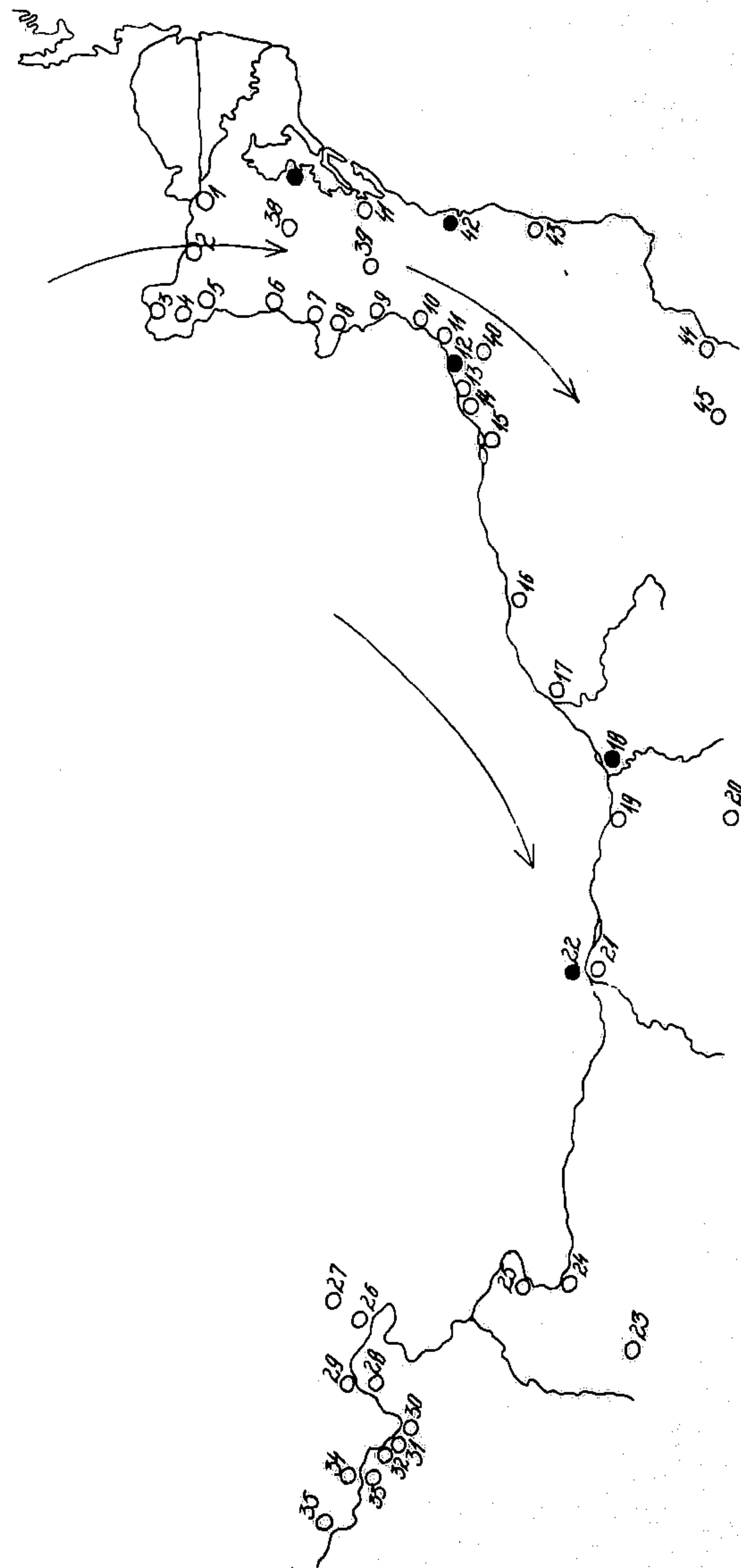


Plate Li Route of Invasion of A.D. 331

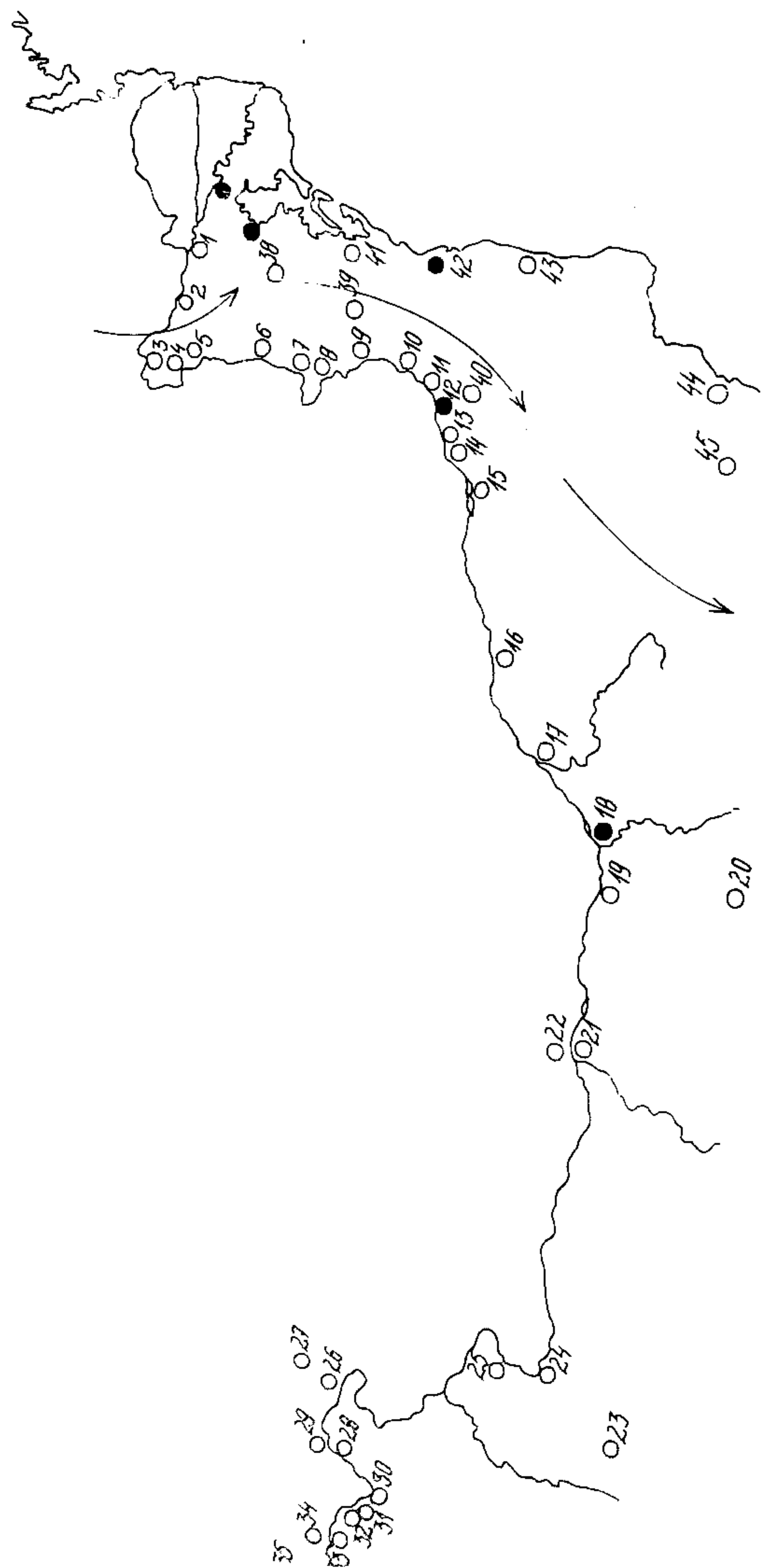


Plate LII Route of Invasion of A.D. 377/78

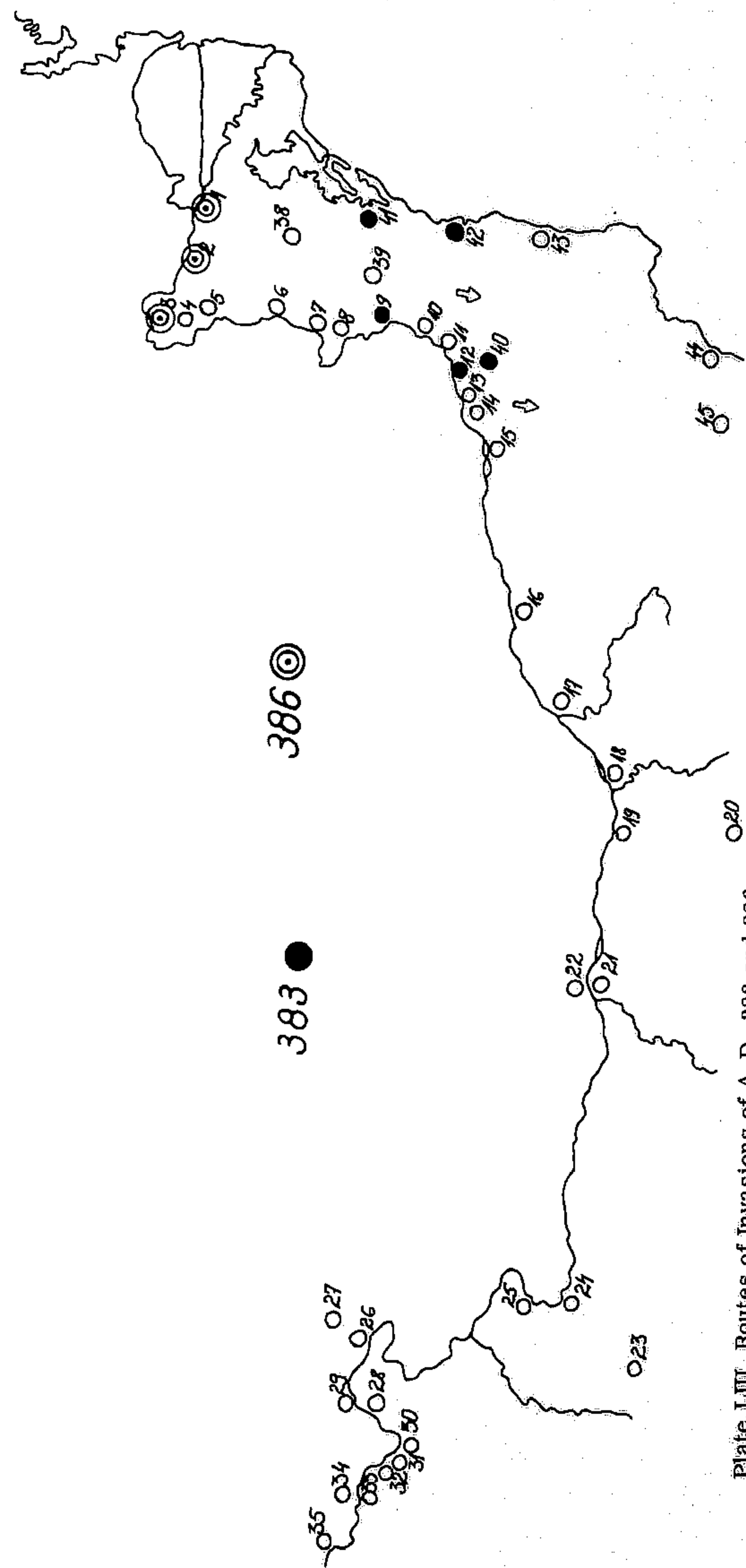


Plate LIII Routes of Invasions of A.D. 383 and 386

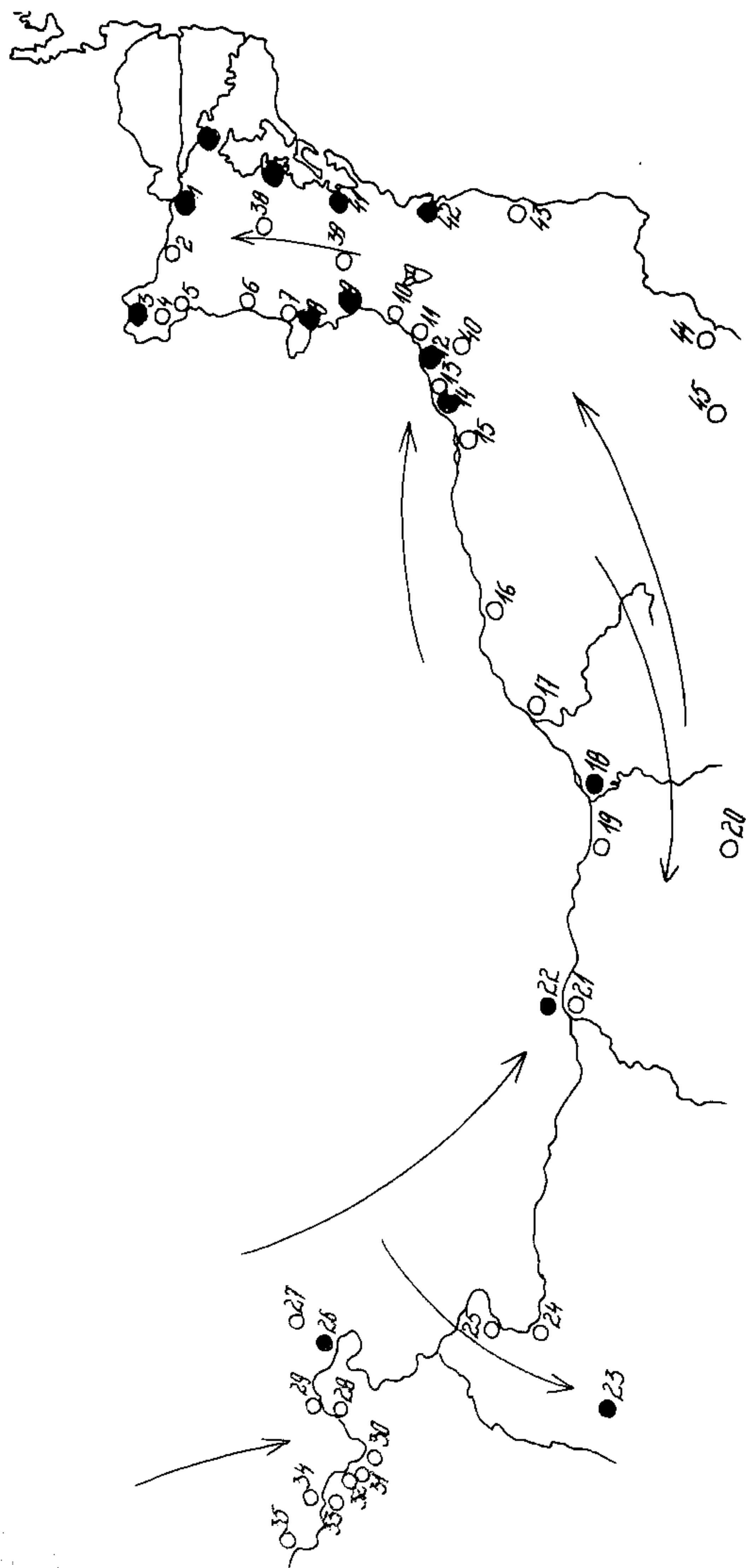


Plate LIV Routes of Invasions of A. D. 434-449

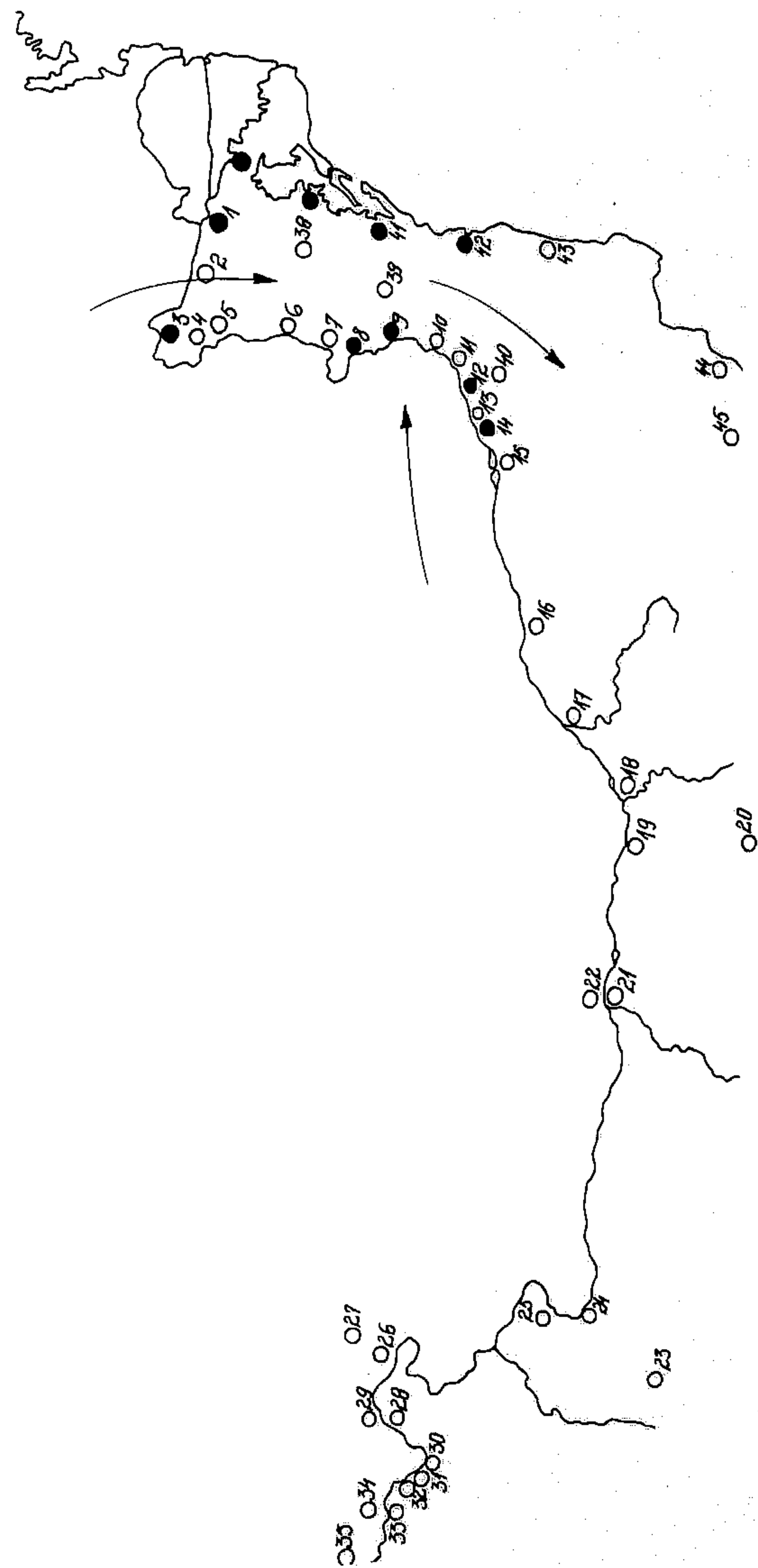


Plate LV Routes of Invasions of A. D. 471-488

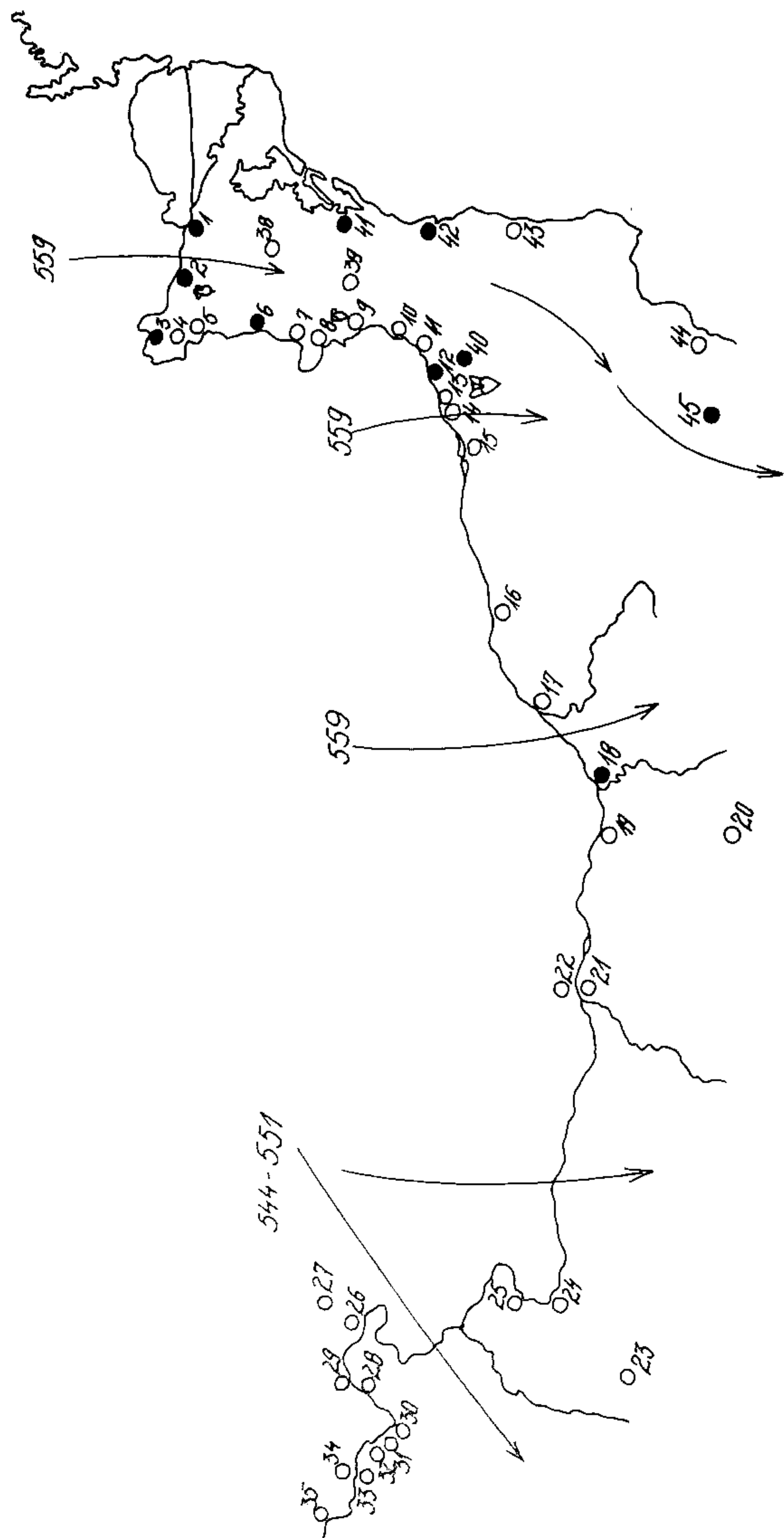


Plate LVI Routes of Invasions of A. D. 544-551 and 559

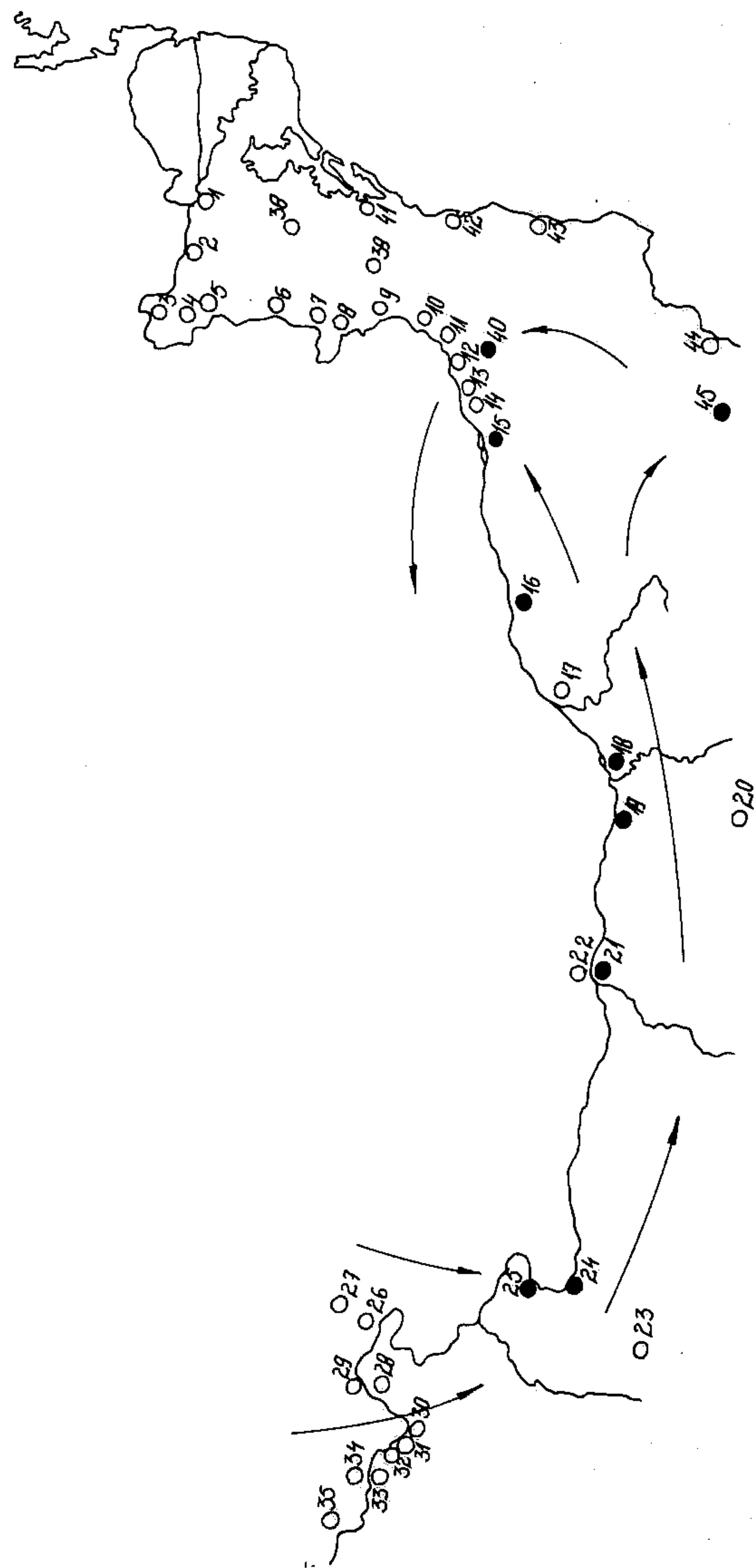


Plate LVII Route of Invasion of A. D. 586/87

APPENDIX: MILITARY UNITS AT SACIDAVA

COHORS I CILICUM

Cohors I Cilicum Milliaria Equitata Sagittariorum was one of the auxiliary units of the early Roman period in Scythia Minor. Attested by a significant number of inscriptions, it had its headquarters in West Moesia (later Moesia Superior), and Moesia Inferior.¹

Documentary evidence led some authors to conclude that Cohors I Cilicum frequently changed its location,² either as "a kind of mobile unit",³ or a unit with its permanent base in the interior of Dobruja, at Cetatea (Azarlîc),⁴ whence it was sent out on various missions to different parts of the province.

During the 1979 excavations at Sacidava (Musait),⁵ several Latin inscriptions were discovered which make a notable contribution to the history of the Roman army, especially Cohors I Cilicum, in Scythia Minor. On the basis of these recent finds we can attempt to revise and refine our views and earlier hypotheses.

During the excavations in 1972, we discovered at Sacidava a brick with the stamp of Cohors I Cilicum,⁶ on the basis of which a series of assertions were made.⁷ Naturally the recently discovered inscriptions make it necessary to renew the discussion, based as it was on a single stamp.

No. 1. The lower part of an altar of calcareous stone; on one of its faces, the last lines of a Latin inscription survive (Figs. 1, 2). This altar was reused in the construction of tower A in the 4th century, in the remains of which it was discovered.

The dimensions of the altar are: height, 0.48 m; width, 0.38 m; width of the base, 0.50 m. The inscription has no frame. It is well executed, with large deeply incised letters, a few of them slightly sloping to the left. Triangular stops separate the words. There are no ligatures, though in the second line, the letter O was incised inside the letter C.⁸

... Prisc(us) p[r -]
aef(ectus) coh(ortis) I Aq-
vi[e]t(anorum) (et ?) trib(unus) coh(ortis)
I Cil(icum).

No. 2. In the south-east corner of tower E (at the West Gate), a large tombstone (altar), the inscription on which was legible⁹ (figs. 3, 4), was reused in the construction of the face of the wall.

The altar has the following dimensions: height, 1.60 m; width, 0.80 m; thickness, 0.64 m.

The field of the inscription is simple, and has no frame. The inscription, in Latin, is in 6 lines. The lines and the letters are well cut and spaced, and are easily legible. In certain spaces, ivy leaves (*haedera distinguens*) appear.

The height of the letters varies between 5.8-6 cm. The distance between lines is 9 to 10 cm; that between lines 5 and 6 is 6 cm. The space between letters is 1.5-3 cm.

The field of the inscription shows some damage and wear.

One notes some clumsiness in the execution of the inscription and in the organization of the text; for instance, the crowding of the letters in line 2, in contrast with the widely spaced letters of line 3 (especially at the beginning). Also, the ivy leaves seem placed at random.

We note some grammatical errors. In line 2 we find 'Valerie Gaie', and in line 3 'vive', where the diphthong æ is written as e (but is written correctly in line 3, 'suae').

The name Aurelia Gaia and Iulius Iulianus are encountered in inscriptions of the early Roman period, from the 3rd century.¹⁰ The form of the letter G used in line 3 spreads through the provinces from the 2nd century, and the shape of the letter A may confirm the dating to the 2nd century.¹¹

D(is) M(anibus)
Valeri(a)e Gai(a)e con-
iugi suae viv(a)e
petenti Iulius Iulia -
nus s(ingularis) c(onsularis) coh(ortis) I Cili-
cum memoriam fecit.

No. 3. In the north-west corner of tower D, there was a calcareous stone altar, broken on one side, but retaining a large part of a Latin inscription (Figs. 5, 6).

The dimensions of the altar are: height, 1.75 m; width, 0.55 m; thickness, 0.57 m.

The altar being broken on the right edge, nearly 16-22 cm of the field of the inscription is missing.

The inscription has no frame. It is arranged in 11 lines, in carefully cut capital letters. The height of the letters is 6 cm and the distance between lines is 1.5 cm. The distance between letters is 3 cm.

In line 9, the letter C is superposed over the letter E. It is worth noting the shape of the letter L¹², and also that of the letter G. Some parts, especially lines 1-3 on the right, are worn.

We suggest the following completion:

Marco [Iul(io)]
Philip[po]
Nobilis[simo]
Caesar[I fil(io)]
Imperatoris Mar(c)i [Iul(ii)]

Philippi in [vic]
ti Aug(usti) C[oh(ors) I]
Cilicum d[edi]
cante C(aius) Pr[as]
tina Me[ssa]
lino co[ns(ecravit)]

No. 1 is an altar which retains the final part of an inscription in Latin. We are not sure about the character of this inscription, however, and taking into account that no funerary formula appears at the end of the text, we feel inclined to regard it as an ex voto.

Priscus was prefect in Coh(ors) I Aqui(tanorum), then tribune in Coh(ors) I Cil(icum).

The whole name of the cohort whose prefect was Priscus, is Cohors I Aquitanorum veterana equitata, and it is attested between the years A.D. 17-42 in Dalmatia.¹³ Then, until A.D. 69-70, it was in Moesia, at a camp which is still unknown. After the A.D. 70 it was moved and stationed in Germania,¹⁴ then in Britannia.¹⁵

Cohors I Cilicum milliaria equitata sagittariorum was brought, as is well known, from Asia Minor.

Originally, under the Flavians, it was located in Western Moesia,¹⁶ in A.D. 78. After the year 86 (the year of the division of Moesia into two provinces) it is met in a garrison in Moesia Superior, being documented in the years 93¹⁷ and 100.¹⁸ After the Dacian Wars it is stationed in Moesia Inferior and mentioned in inscriptions, the earliest dating from A.D. 134,¹⁹ then in A.D. 157/58,²⁰ 177/79 and so on.²¹

We consider it is worth trying to fix the date when Priscus ceased to discharge the function of prefect in Cohors I Aquitanorum and became tribune in Cohors I Cilicum.

We know that the last years when Cohors I Aquitanorum was stationed in Moesia were A.D. 69-70, also that at approximately the same time Cohors I Cilicum was brought to Moesia. We can propose, as a working hypothesis, that although the first documentary mention of the presence of the Cohors I Cilicum in West Moesia is only in A.D. 78, that in the year 70 Cohors I Aquitanorum, which was moved to Germania, was replaced by Cohors I Cilicum. Also, we suggest that in the same year Priscus was relieved of the post of prefect of Cohors I Aquitanorum and became tribune of Cohors I Cilicum, recently brought to West Moesia (now Moesia Superior) where this military unit was to remain until 100. It is less probable that Priscus went as prefect with the Cohors I Aquitanorum and was later moved as tribune to Moesia Inferior.

From the year 70, when he probably was prefect of Cohors I Aquitanorum, until the year 100, when we presume he was tribune of Cohors I Cilicum (the latest date at which the cohort is attested in Moesia Superior being 100) 30 years had passed, which would indicate that Priscus, as an active tribune in the first

cohort of Cilicians, when he erected the altar at Sacidava, was near the age of retirement from the army.²² This means that the location of Cohors I Cilicum at Sacidava took place earlier than was hitherto thought, in any case before A.D. 134 (the date of the first mention of it, until now, in Moesia Inferior), and perhaps at the end of the first Dacian war (A.D. 101-103).²³

As a result of this, the hypothesis that Cohors II Gallorum was based at Sacidava during the period A.D. 99-112,²⁴ can also be revised. We list the following reasons:

1. The inscription was discovered at the edge of the village of Rasova where, on the hill called "Pescărie", there is a Roman fortification (at a considerable distance from Musait-Sacidava).
2. The number of the cohort of Gauls, of which M. Valerius was a veteran, is absent from the text of the inscription.
3. The diploma of M. Antoninus Rufus, a soldier of Cohors II Gallorum, was discovered at Oltina.
4. M. Valerius, according to the Rasova inscription, was a veteran. This does not necessarily indicate the presence of the military unit at the place of the discovery of the inscription.²⁵

In view of the above evidence, and also the probable dating of the altar recently discovered at Sacidava, we think that the location of Cohors II Gallorum in Moesia Inferior between 99-112 cannot be precisely established yet and that there is no evidence in support of the hypothesis that it was located at Sacidava.²⁶

The altar of the prefect, later tribune, Priscus, seems to indicate that originally, immediately after the end of the first Dacian war and at the time when the Scythian limes were fortified and new and reliable troops were introduced, Cohors I Cilicum was placed by Trajan at Sacidava (Musait). This military unit, headed by its tribune Priscus, built the first Roman camp at Sacidava, just as Ala II Hispanorum et Ar(a)vacorum built the camp at Carsium.

We think it is also worth mentioning the inscription on a simple, undecorated tombstone discovered in 1978 at Sacidava. This is the memorial of a tribune, very probably of Cohors I Cilicum since this military unit was garrisoning Sacidava (see the conclusions below) (Figs. 7, 8):

D(is) M(anibus)
Saturininus
Serbus
Iuli Faustini
tribuni.

The inscription was clearly incised, with elegant lettering and without abbreviations. We note Saturininus instead of Saturninus.

We think this inscription should be translated: Saturininus, the slave of the tribune Iulius Faustinus.

We may also note that Serbus is a very rare cognomen (only two examples in I. Kajanto, The Latin Cognomina, Helsinki 1965, 314).

Therefore, we should have attested here another tribune (Iulius Faustinus) of Cohors I Cilicum, in the 2nd century at Sacidava.

The second inscription, to judge from the organization of the text, the style of the letters and the personal names, can be dated to the 2nd century.

For us, the great value of this inscription consists in the certain attestation, once again, of the presence of Cohors I Cilicum in the garrison at Sacidava (Musait).

We emphasize that the man who raised the funerary stone for his wife Valeria Gaia, is Iulius Iulianus, an active soldier discharging his function of singularis consularis in cohors I Cilicum. The attestation of a singularis consularis of this cohort is important, too.

The third inscription is also of significance for the history of Sacidava and for the history of the army in Scythia Minor.

The altar is dedicated by the Cohors I Cilicum to Marcus Iulius Severus Philippus, the son of the emperor Philip the Arabian, who was his associate at the beginning of the reign as Caesar and then, in 246, as Augustus.

In the inscription, Severus is absent, but the title of Nobilissimus Caesar appears. The full name of the emperor is Marcus Iulius Philippus, with the titles of Invictus and Augustus.

The inscription was raised and dedicated by Cohors I Cilicum, during the time of (or perhaps even in the presence of) Caius Prastina Messalinus. In the Sacidava inscription we recognize the governor of Moesia Inferior, attested in the time of Philip the Arabian by coins discovered at Marcianopolis (245-247),²⁷ and also by an inscription discovered at Tomis, though opinions concerning the chronology of this are contradictory.²⁸

It also is noteworthy that the altar was not raised by one or more individuals, but by Cohors I Cilicum in the name of the whole military unit, an action inaugurated by the governor of the province.²⁹

In accordance with the above (the title of Caesar, but not yet of Augustus, and the mention of the governor C. Prastina Messalinus), we can with reasonable certainty date the altar to 245-246, because by the middle of 246 Philip II already bore the title of Augustus.³⁰

Two essential problems can be solved by this inscription. The first refers to the governor C. Prastina Messalinus and the second to the presence of the Cohors I Cilicum at Sacidava in the middle of the 3rd century.

As regards C. Prastina Messalinus, until this inscription was discovered at Sacidava we knew only of two references. As we have mentioned above, coins of 245-247 with the name of this governor were discovered at Marcianopolis. An inscription discovered at Tomis was dedicated to the Genio loci by C. Prastina Messalinus, legatus Augusti pro praetore.³¹

But opinions as to the period when he governed Moesia Inferior are not unanimous in the literature. The inscription from Tomis, being "undated", was attributed, with doubts and reserves, to a governor of Moesia Inferior with this name in the years 155-156.

The authors who proposed this depended on the fact that in the year 147 a C. Prastina Pacatus Messalinus was Consul, and also on the elegant style of lettering used in that inscription, which might have indicated an Antonine date. Gr. Tocilescu and S. E. Stout agree with the presence of a governor with the same name in the reign of Antoninus Pius.³² A. Stein oscillates, with reservations, between these two opinions,³³ and R. Vulpe considered the date 155-156 "more hypothetical", emphasizing however the fine style of lettering.³⁴ On the other hand J. Fitz considered that all the references to C. Prastina Messalinus as leg. Aug. pr. pr. of Moesia Inferior must relate to the official of the time of Philip the Arabian.³⁵

This inscription from Sacidava adds to the few which date from the reign of Philip the Arabian.³⁶

In the light of this new discovery, the problem of the chronology of the inscription from Tomis and its dedicant require reconsideration.

We consider that the governor in the Tomis inscription is the same as that of the inscription from Sacidava, and that both date from the reign of Philip. Our arguments are as follows. At Sacidava, C. Prastina Messalinus appears together with Cohors I Cilicum, in the reign of Philip, on the same inscription. The three entities appear also at Tomis, though not all three are in the same inscription, but in two: the cohort and Philip in one inscription, and C. Prastina Messalinus in another.³⁷ We cannot exclude a priori the possibility that a finely cut inscription could date from the 3rd century, in a metropolis like Tomis. We may also suppose that at the same time as the altar from Sacidava was raised by Cohors I Cilicum, a detachment of the same cohort had been sent to Tomis, where a soldier, Cornelius Valentinus, placed the inscription that devoted the imperial cognomen of Philippiana to that military unit.³⁸ We should not forget the second Tomis inscription, erected by Valens, which is also dated to the 3rd century.³⁹ All these events took place in the time of the same leg. Aug. pr. pr. C. Prastina Messalinus.

Finally, a last problem that the inscriptions from Sacidava can solve is that of the location and date of the garrison of the Cohors I Cilicum.

The four inscriptions of the Cohors I Cilicum, from Sacidava (the stamped brick,⁴⁰ the altar of Priscus, tribunus of the cohort, very probably dating from the beginning of the 2nd century; the tombstone raised by Iul. Iulianus,

singularis consularis of the same cohort in the 2nd century; the inscription dedicated to Philip Junior by the cohort in the mid-3rd century) prove conclusively that over a long period of approximately 150 years, Cohors I Cilicum was in the garrison camp at Musait-Sacidava, the fortress built at the beginning of the 2nd century by this cohort.

All the other inscriptions which mention this military unit, discovered in Moesia Inferior, at Tomis, Dinogetia, Kersones, or Azarlfc show only that detachments from Cohors I Cilicum (which was both equitata and milliara) were sent to different places on various missions. Even the inscription from Azarlfc (Cetatea),⁴¹ which led to attempts to identify that fort with its permanent residence, the so-called Castellum Cilicum,⁴² by correlation with Procopius, contains only the statement that in 177-179 a detachment of Cohors I Cilicum under the leadership of the tribune Anternius Antonius, by the order of the governor of the province, solved the litigation between the Dacian and Thracian colonists of that area and established the borders of the ausdecenses territory. But the very fact that a monument was erected to mark this important event at Azarlfc, indicates that the unit did not have its base here, but came from another fortress.

In fact, the Latin name Castellum Cilicum does not appear in any inscription and the interpretation of the reference in Procopius to φρούριον δέ το Τιλικίων as representing φρούριον Κιλικίων, that would indicate the memory of a former Castellum Cilicum,⁴³ must be revised. If the settlement mentioned by Procopius preserves the memory of the garrison camp of Cohors I Cilicum down to the 6th century, this camp cannot be located inside Dobruja but on the Danube, at Musait-Sacidava.⁴⁴ But probably φρούριον δέ το Τιλικίων means something else and lies within Dobruja. Sacidava is noted by Procopius on the Danube under the name Skedeba.

LEGIO V MACEDONICA, LEGIO XI CLAUDIA AND LEGIO I ITALICA

By way of conclusion we should mention that Sacidava not only proves to be the base of Cohors I Cilicum over a long period, but it also offers us information about other military units on its territory. Thus an inscription, already edited by the present author in 1977,⁴⁵ attests the influences and the direct action of legio V Macedonica from Troesmis.

We must also mention the influence of Legio XI Claudia (which had its base nearby, at Dourostorum), since the tombstone of a veteran and stamped bricks were discovered at Sacidava.

The tombstone, discovered in 1979, was erected in memory of a veteran of the of the Legio XI Claudia. Only the upper part of the stela survives, with a neatly decorated register and with the beginning of the text (Figs. 9, 10):

D(is) M(anibus)
M(arcus) Aur(elius) Sat-
urninus
vet(eranus) leg(ionis) XI
Cl(audiae) ...

The three brick-stamps indicate that the authority of Legio XI Claudia of Durostorum extended at some time to Sacidava.

1. Leg(io) XI Cl(audia) (Fig. 11).
2. Leg(io) XI Clau(dia)⁴⁶ (Fig. 12).

One brick carries the final part of a stamp consisting of four letters:

3.]TRAM (Fig. 13).

(Leg(io) XI Cl(audia) F(elix) Tram(ariscae).)⁴⁷

A brick with a stamp of legio I Italica is of interest:

4. Leg(io) I Ital(ica)⁴⁸ (Fig. 14).

We do not know to what extent these brick-stamps can be considered as real evidence of the presence of detachments of Legio XI Claudia and Legio I Italica at Sacidava, or only as signs of an authority, of an exercised influence, or perhaps only of some relations.

It is difficult to specify the periods at which these influences were exercised at Sacidava. Perhaps until 167 Sacidava was in the area of authority of Legio V Macedonica and then, after 167 (when the legion at Troesmis was moved to Dacia), Legio I Italica extended its authority to Sacidava, that is to say Legio I Italica took over the area of Legio V Macedonica, and later on that of Legio XI Claudia.⁴⁹

We suggest the following hypothesis. The authority of Legio V Macedonica was exercised at Sacidava until 167; from 167 until the end of the 2nd century it was replaced by the authority of the Legio I Italica; from the end of the 2nd century to the end of the 3rd century, it was under the authority of the Legio XI Claudia (when this legion extended its activity within the province too, and even at the mouth of the Danube).

SOLDIERS AND VETERANS

1. Tombstone reused for building the face of tower F at Sacidava (Figs. 15-17).

Dimensions: height, 2.37 m; width, 0.82 m; thickness, 0.26 M.

The stela has a rectangular shape, with two registers.

The upper register, in a rectangular frame, with a plain border measuring 0.73 x 0.44 m, bears relief portraits to the members of a family; father, mother and two children.

The lower register contains a funerary inscription in Latin in a rectangular frame. The border measures 0.12 m, decorated by vine tendrils with grapes and leaves which start from a kantharos in relief in the lower part of the stela.

Dimensions of the inscription: 1.21 x 0.52 m.

The inscription is displayed in 13 lines, with letters of unequal sizes. For example in line 1, the height of the letters is 6 cm, in line 2 it is 4-6.5 cm, in line 3 it is 3 cm, in line 5 it is 4 cm and in line 8 it is 2-4.5 cm.

Dots are used between the words. We note at the end of the second line the greek letter Σ.⁵⁰

The text reads:

D(is) M(anibus)
Aurel(ius) Ditus-
anus stra-
tor trib(uni) vix(it)
an(nis) XLVIII et Cl(audia)
Coc(ceia) coniux
memoria(m)
posuit vivo
suo qui di-
... us est
in barbarico
et Aure(lia) Ael(ia)
fil(ia) eius et her(es)

The beginning of the 9th line was badly damaged, perhaps when it was put into the wall. We may consider one of the following completions: dilatus est, dimissus est, dilapsus est, disperditus est.

This funerary text mentions a strator tribuni, Aurelius Ditusanus, who was killed or disappeared somewhere in the barbarian world.

Strator means an inferior military post. The strator had charge of the stables and horses of an officer and accompanied him on various missions.⁵¹ The suffix -anus usually indicates a slave or a recently liberated slave (libertus) who takes his name from his master.⁵² On this interpretation, therefore, we deduce that there was at some time a tribune with the name Ditus at Sacidava.⁵³

The inscription, in my opinion,⁵⁴ dates from the 3rd century. If this is so, then we should bear in mind the events of that time in Dobruja, notably the Gothic invasions of the second half of the century.⁵⁵

2. A tombstone, reused in the building tower F at Sacidava. Broken in two pieces, but readily completed (Figs. 18, 19).

Dimensions: height, 2.72 m; width, 0.85 m; thickness, 0.29 m.

The tombstone consists of two registers.

The upper register: A female face (Medusa) in relief surrounded by a zigzag band. On either side, two reliefs probably representing stars. Below, a funerary feast (coena funebris) framed by two columns with Ionic capitals, from which springs a garland-like vault.

Two persons are lying a kliné, and a woman sits on a kathedra; a child approaches from the left with a pot or a torch in his hand, towards a mensa tripes placed above a simple altar.

Although worn, the relief is generally well executed.

The second register contains the inscription, with a plain border, but decorated with the traditional tendrils.

The dimensions of the inscriptions are 0.95 x 0.47 m.

The letters are large and well cut, some with serifs but unequally and irregularly placed.

Between the original fourth and fifth lines, another line was inserted later, with very small (1-1.5 cm) and untidy letters.

The height of the letters varies from 4 to 5.5 cm. There are two ligatures: M+A in the second line and N+T in the eleventh line.

We may also note mistakes made by the stonemason in the fourth line (pretoriano instead of praetoriano) and in the seventh line (coiux instead of coniux).

In our transcription:

D(is) M(anibus)
Aurel(io) Mar-
co vet(erano) ex
pr(a)etoria
no Aurel(ia)
Sispiris
co(n)iux et
Aur(elia) Mar-
cia filia
et hered(es)
posuerunt.

Between the fourth and the fifth line there has been added in small and crowded letters: vix(it) an(nis) XLIII (m)i(litavit) an(nis) XVIII.

We read that a veteran of a praetorian cohort has settled down with his family at Sacidava. Aurelius Marcus was married to a native woman or a Romanized Levantine called Aurelia Sispiris. Their daughter has an entirely Roman name in accordance with that of her father.

This inscription is important as there are not many examples of veterans from praetorian units who settled down in Dobruja.⁵⁶

The name Aurelia Marcia rarely appears⁵⁷ but what is more interesting is that, also in Sacidava, a certain Aurelia Marcia erected the tombstone of her husband, a former exercitator equitum.⁵⁸ It may be that the daughter of Aurelius Marcus (ex-soldier from a praetorian unit, who married a Levantine and settled down at Sacidava) later married an officer in Sacidava. The similar dating of the two tombstones to the end of the 2nd or 3rd centuries is quite certain.

3. Funeral stele of limestone, reused as building material in the face of tower F at Sacidava. Broken in the middle, it still fits perfectly (Fig. 20, 21).

Dimensions: height, 1.82 m; width, 0.73 m; depth, 0.29 m.

The tombstone is divided into three registers. The frame is decorated with a vine stalk.

The top register represents a triangular fronton, 0.30 m high, with a plain frame. In the lower corners there are acroteria with palmettes. Inside

the pediment there is a plain, central plate and two ivy leaves inside the blank spaces in the corners.

The middle register is rectangular (0.49 x 0.25 m) and contains coena funebris. On a kline which fills the whole space there lies a figure holding a crown in its right hand. In front of it is a mensa tripes of smaller size.

The bottom register contains in a rectangular panel (0.77 x 0.47 m) the funeral text written in Latin. This inscription consists of nine lines. The space between them is about 3 cm. The height of the letters varies from 4.5 cm to 5 cm.

The letters are well but irregularly carved, with oblique hastae and a tendency to lean to the right. We note that the letter A has no horizontal hasta.

The inscription reads:

D(is) M(anibus)
Diurdano
Decibali ve
teran(o) Q(uintus) Pri-
scus filius
et Felix Liber-
tus bene me-
renti posu-
erunt.

This funeral stele was erected for Diurdanus (son) of Decibalus, veteran of the Roman army. We are not told in which unit he did his military service. No doubt he is a veteran of Geto-Dacian origin, romanized but certainly conscious of his origins.⁵⁹

The name Decibalus is also encountered in Scythia Minor.⁶⁰

The stele was set up by his son, who had an entirely Roman name, Quintus Priscus, together with a libertus named Felix. We do not know the position and the social relationship of this freedman in the family and household of Diurdanus son of Decibalus. The inscription proves that veterans had slaves in their households, who might be freed.

4. Funeral stele reused in the building of tower F (Figs. 22, 23).

The limestone is soft and of very poor quality.

Dimensions: height, 1.24 m; width, 0.64 m; thickness, 0.25 m.

The tombstone has two registers.

Upper register. In a rectangular frame (0.45 x 0.36 m) there is a relief showing a standing Roman soldier roughly carved. He has a spear in his right hand and a round shield in his left hand.

The stele frame is decorated with the traditional vine tendril, with leaves and grapes.

The lower register, in a rectangular cornice (0.90 x 0.36 m), carries the funeral text in Latin.

The text can hardly be read because of the softness of the limestone, causing wearing and crumbling of the stone surface.

Only ten lines are preserved. The letters are 4 cm high. On the second, fourth, fifth and eighth lines the letters extend into the frame space.

Transcription of the inscription:

D(is) M(anibus)
Val(erius) Cas-
tus corn(icularius)
vix(it) an(nis) XLVIII
Ael(ia) Sabina
coniux et
Val(erius) Eterna-
lis fil(ius) et
heredes
b(ene) m(erenti)

We note Eternalis instead of Aeternalis.

The most significant information given by this inscription is that about a former cornicularius in Sacidava, in a military unit which is not specified in the text. The name of Castus is also met in some other parts of Dobruja,⁶¹ as are those of Sabina⁶² and Aeternalis.⁶³

THE CULT OF JUPITER DOLICHENUS

The military cult of Jupiter Dolichenus is represented at Sacidava by two important inscriptions.

1. An altar, with Latin inscription. Height, 0.95 m; width, 0.45 m (Fig. 24).

I(ovi) O(ptimo) M(aximo) Iol(icheno)
pro salute) Δ(omini)
n(ostri) im(eratoris) M(arci) Aur(elii)
Sev(eri) Alex(andri) P(ii) F(elicis)
Invic(t)i Aug(usti) Fl(avius)
Germ(anus) II ver
Aes(ignatus) et Ail(ius) Fl(avius)
et Marin(us) Sac(erdotes)
p(ro)s(uerunt)

We note the Greek Δ in lines 1, 2 and 7, and some mistakes: Iiver instead of II vir (=duumvir)⁶⁴ and Ail(ius) instead of Ael(ius).

The altar was dedicated to Jupiter Dolichenus, in the reign of Severus Alexander, by duumvir Flavius Germanus and the priests, Aelius Flavius and Marinus.

2. Votive plaque, a tabula ansata. Height: 0.60 m, breadth, 0.35 m (Fig. 25).

I(ovi) O(ptimo) M(aximo) Dolohe-
no pro salut-
e imp(eratori), Iul(ius) Alexa-

nder et Germa-
nu (u's Baronas
Sacerdotes po-
suer (unt).

This ex voto for Jupiter Dolichenus, was raised by the priests Iulus Alexander and Germanu (u's Baronas). It may be dated to the end of the 2nd century.

In the present writer's opinion, together with another inscription,⁶⁵ this tabula ansata proves the existence of a temple of Jupiter Dolichenus at Sacidava.

The causes which led to the flowering of the cult of Jupiter Dolichenus at Sacidava may be related to Cohors I Cilicum, the garrison of this fort from 103-105 to the middle of the 3rd century, whose oriental origins explain the power and the dissemination of the cult.

NOTES

1. The most important works which contain the bibliography: W. Wagner, Die Dislocation der römischen Auxiliarformationen in den Provinzen Noricum, Pannonien, Moesien und Dakien von Augustus bis Gallienus, Berlin, 1938, pp. 119-120; D. Tudor, Cohors I Cilicum în Scythia Minor și Taurida. Contribuții la cunoașterea legăturilor dintre coasta de vest și nord a Mării Negre, în sec. I-IV, AUB, 5, 1956, p. 45; B. Beneš, Auxilia Romana in Moesia atque in Dacia, Academia Praha, 1978, pp. 24-25; A. Aricescu, Armata în Dobrogea romană, București, 1977, pp. 57-59, 89 (translated as 'The Roman Army in Dobrudja', BAR International Series, 1980).
2. D. Tudor, Inscripții romane inedite din Oltenia și Dobrogea. Materiale, 2, 1956, pp. 583-584.
3. A. Aricescu, op. cit., pp. 59 and 106.
4. Ibid., pp. 58, 91, 92, 95, 104, 106; Idem, Dacia, NS, 14, 1970, pp. 305-306; Idem, Auxilie limitis Scythici, Actes, p. 120; D. Tudor, AUB, 5, 1956, p. 57, says that the centre must be looked for somewhere between Tomis and the Danube. Idea taken by K. Kraft and J. Beneš, loc. cit.
5. The excavations on Musait hill on the right bank of the Dobrujan Danube were carried out from 1969 to 1979, and were directed by C. Scorpan.
6. C. Scorpan, Sacidava, a new Roman fortress on the map of the Danube limes, in Actes du IX-e Congrès International d'étude sur les frontières romaines (Mamaia 1972), Bukarest, Köln, Wien, 1974, p. 113, pl. 27. Idem, in Roman Frontier Studies XII, B. A. R. International Series 71, 1980, pp. 787-797.
7. Actes, p. 127; A. Aricescu, op. cit., pp. 59, 89, 103.
8. R. Cagnat, Cour d'épigraphie latine, Paris, 1914, p. 24, considers a ligature.

9. The poor quality of the photograph is due to the inconvenient position of the inscriptions in the walls, in the shade.
10. I. I. Russu, RIR, XVI, 1946, pp. 173-179; Idem, AISC, V, 1944-48, p. 344; Gr. Tocilescu, Fouilles et recherches, p. 210, no. 37, pp. 56, 197, 198 no. 20; RIAF, 1903, vol. IX, pp. 46 no. 59.
11. R. Cagnat, op. cit., pp. 12 and 16.
12. Ibid., p. 18, the shape of letter L—after A.D. 165.
13. G. Alföldy, Die Auxiliärtruppen der Provinz Dalmatien. AA Hung., 14, 1962, pp. 259-296.
14. W. Wagner, op. cit., pp. 87-88; K. Kraft, Zur Rekrutierung der Alen und Cohortes an Rhien und Donau, Bern, 1951, p. 166 nos. 1040-1044; V. Gherasimova, Dislokacija na rimskite pomostni vojski v provincija Mizija ot 44 do 86 g., Archeologija, XII/4, 1970, pp. 27-28; J. Beneš, op. cit., p. 169 no. 5.
15. R. G. Collingwood, Ian Richmond, The Archaeology of Roman Britain, London, 1969, p. 42 (between A.D. 155-158, cohors I Aquitanorum was in the fort of Brough-on-Noe = Novio). Cf. G. Forni, Limes, in Dizionario Epigrafico di Antichità Romane, IV, Fasc. 34-40, p. 1144.
16. CIL, XVI, 22.
17. CIL, XVI, 39.
18. CIL, XVI, 46.
19. CIL, XVI, 78; W. Wagner, op. cit., p. 119.
20. I. Venedicov, Rimska voenna diploma ot Brestovene, Izvestiia-Varna, 9, 1953, pp. 61-68; Aép, 1961, p. 128. K. Kraft, op. cit., p. 173.
21. CIL, III, 14.437; G. G. Mateescu, BCMI, VIII, 35, 1916, no. 14, p. 38. D. Tudor, AUB, 5, 1956, p. 45. D. Tudor, Materiale, 2, 1956, pp. 582-583, nos. 51, 52.
22. In my opinion, Priscus' age and the period of his military service might be counted thus: suppose he enrolled at the age of 16-17 (according to the rules, recruiting was from 16 to 20—see G. Forni, Il reclutamento delle legioni da Augusto a Diocleziano, Milano-Roma, 1953, p. 22) and in 69-70 he was already prefect of Coh. I Aquitanorum and was at least 25 years old (according to Mommsen and Cagnat, op. cit., p. 113). By 103, when we consider that he set up the altar in Sacidava, Priscus was the tribune of Coh. I Cilicum and was at least 58 years old and had been 42 years in the army. Therefore we conclude that he could not have set up the altar, as an active officer, later than 103-105.
23. After the first Dacian war and the Roman victory at Adamclisi (Tropaeum Traiani in Dobruja) the limes of Moesia Inferior was rebuilt and between 103-105 the three known legions settled down here. Generally, Moesia Inferior played a minor part in the second Dacian war (cf. R. Vulpe, DID, 2, 1962, p. 95). One more piece of evidence is the building of the fort of Carsium in A.D. 103 by Ala II Hispanorum et Aravacorum

- (V. Pârvan, Descoperiri nouă în Scythia Minor, ARMSI, S II, tom XXV, 1 1912-1913, pp. 481-489.
24. A. Aricescu, Două inscripții din vecinătatea Sacidavei, Pontica, 7, 1974, p. 263. Idem, Armata în Dobrogea romană, pp. 66, 89 especially p. 103.
25. We must not forget the earlier opinions on Coh. II Gallorum, of W. Wagner (op. cit., pp. 135-136), or J. Beneš (op. cit., p. 32), or G. Forni (Limes, in E. de Ruggiero, Dizionario epigrafico di Antichità romane, IV, Roma, 1959, p. 1271), which assert that the camp of Coh. II Gallorum was at Durostorum.
26. In fact, in A. Aricescu, op. cit. there appear some obvious contradictions that create confusion. Thus, on page 59 (Romanian Edition): "we find it (coh. I Cil.) in Sacidava, where perhaps it may have contributed to the building of the fort or to its rebuilding"; on p. 89: "Probably it (coh. II Gallorum) was cantoned by Traianus at Sacidava, where the fort was built, and then, after 112 it was sent to Dacia and replaced by coh. I Cilicum". On the same page 89, a table: "Sacidava—Cohors II Gallorum, Cilicum". On the same page 89, a table: "Sacidava was garrisoned between then Cohors I Cilicum". On p. 103: "Sacidava was garrisoned between 99 and at least 112—probably by Cohors II Gallorum, then, even under Trajan, by Cohors I Cilicum; after Hadrian, we know no other auxiliary unit which was settled in this fort."
27. R. Vulpe, DID, 2, p. 241.
28. Ibid., p. 147 and 241.
29. Examples in Gr. Tocilescu, Monumente, p. 147: d(ono) ded(erunt) ded(icante). About the erection of some inscriptions on behalf of an entire military unit, and the dedication by the governor of the province and ded(icante), see ibid., p. 23.
30. R. Cagnat, op. cit., p. 218; cf. R. G. Collingwood, Ian Richmond, op. cit., p. 329 (Appendix). But in R. Vulpe, DID, 2, p. 241, Philip II becomes Augustus in 247.
31. CIL, III, 7529 (= Gr. Tocilescu, AEM, VIII, 1884, no. 13, p. 3). Another fragment, attributed to Philip's period was discovered at Tomis (Gr. Tocilescu, RIAF, 8, 1902, p. 283; D. M. Teodorescu, Momente inedite din Tomi, Buc., 1918, p. 135).
32. Gr. Tocilescu, loc. cit.; S. E. Stout, The Governors of Moesia, p. 31, 74.
33. A. Stein, Die Legaten von Moesian, Budapest, 1940, pp. 71, 102.
34. R. Vulpe, DID, pp. 147-148 and note 130.
35. J. Fitz, Die Laufbahn der Statthalter in der römischen Provinz Moesia Inferior, Weimar, 1966, pp. 16, 34-36. The inscription from Sacidava confirms the opinion of J. Fitz that Moesia Inferior was governed between 244-246 by C. Prastina Messalinus.
36. Before the Sacidava discovery, only seven inscriptions were known, of which three are still uncertain (cf. R. Vulpe, DID, 2, pp. 241-242).

37. D. Tudor, Materiale, 2, 1956, p. 582, no. 51; CIL, III, 7529 (= Gr. Tocilescu, AEM, 8, 1884, p. 5, no. 13).
38. D. Tudor, loc. cit., no. 51.
39. D. Tudor, loc. cit., no. 52.
40. If, taking into account only a single stamped brick, one was able to assert the temporary presence of coh. I Cilicum in Sacidava (A. Aricescu, op. cit., pp. 58-59), so much the more interesting our discussion could be now that we have so many inscriptions and so much more evidence.
41. CIL, III, 14437, 2; V. Pârvan, Cetatea Tropaeum, Buc., 1912 (BCMI, IV, 1911) pp. 25-28; Idem, Inceputurile vieții romane la gurile Dunării, Buc., 1923, pp. 109-111; G. G. Mateescu, BCMI, VIII, 1915, pp. 38-42; a more thorough reading in D. Tudor, Cohors I Cilicum, AUB, 5, 1956, pp. 50-57.
42. A. Aricescu, Dacia, NS, 14, 1970, pp. 305-306; Idem, Armata în Dobrogea romană, pp. 58, 59, 91, 92, 95, 96, 104, 106, 132, 157, 172, 192; D. Tudor, op. cit., p. 57, only asserts that Coh. I Cil. had its camp somewhere between Tomis and the Danube, maybe closer to Civitas Ausdecensium. The idea of the cohort not being based on the Danube bank but inside the Dobruja is taken up by Kraft and Benes, loc. cit.
43. A. Aricescu, loc. cit.
44. The fact that a curator civitatis in Tropaeum Traiani municipium was T. Antonius Claudius Alphenus Arignotus, ex-commander of Coh. I Cilicum (R. Cagnat, Inscriptiones Graecae ad res Romanas pertinentes, Paris, 1906-1927, IV, 1213; D. M. Pippidi, Dacia, NS, 6, 1962, p. 55s), is not an argument for locating the cohort at Cetatea, but rather at Musait-Sacidava, closer to Tropaeum than Cetatea. The connections between Sacidava and Tropaeum are also provided by the inscription dedicated to Jupiter Dolichenus at Sacidava, by Flavius Germanus, duumvir (in Tropaeum) (cf. C. Scorpan, The Cult of Jupiter Dolichenus in Scythia Minor). For other connections between Sacidava and Tropaeum see C. Scorpan, Pontica, 10, 1977, p. 177.
45. C. Scorpan, Stèles funéraires inédites de Sacidava, in Epigraphica, Travaux dédiés au VII-e Congrès d'épigraphie grecque et latine, 1977, p. 203. Also in Actes du VII-e Congrès International d'épigraphie grecque et latine, Buc., Paris, 1979, p. 467 and Pontica, 10, 1977, p. 160.
46. Gr. Tocilescu, Monumente, p. 343.
47. A similar stamp was discovered at Kadiköi, probably the ancient Candidiana (Bulgaria)—cf. Gr. Tocilescu, op. cit., Addenda et Corrigenda, p. 639.
48. Gr. Tocilescu, op. cit., pp. 337-338.
49. C. Scorpan, Epigraphica, p. 206 and Pontica, 10, p. 162.
50. The letter Z sometimes replaced the letter S. Cf. V. Pârvan, ARMSI, tom. XXXVI, 1913, p. 25; Idem, Știri nouă din Dacia Malvensis (=D. Tudor, Oltenia Romană, p. 40, no. 143, p. 40); N. Gostar, SCIV, 5,

- 1954, pp. 607-610; Gr. Florescu, SCIV, 2, 1958, p. 339; (CIL, III, 14413; CIL, III, 570; CIL, VI, 32565 = 2809, Roma).
51. CIL, III, 13737; ARMSI, tom. 38, 1916, pp. 665-666.
52. The suffix -anus is added to the name of the previous master.
53. I. I. Russu, Limba traco-dacilor, p. 156 (Ditus is a Thracian and Illyrian personal name).
54. In accordance with the writing and the name of Aurelianus and Cocceia.
55. C. Scorpan, Săpăturile arheologice de la Sacidava, Pontica, 6, 1973, pp. 288, 292, 315.
56. Gr. Tocilescu, Monumente, p. 84.
57. An example in Dalmatia (CIL, III, 14852).
58. C. Scorpan, in Epigraphica, p. 211.
59. The root Diur- is Thracian. Diurpaneus in Orosius, Adversus paganos, VIII, 10, 4; Dorpaneus in Jordanes, Getica, XIII, 76; a similar Dacian name in CIL, VI, 16903. As regards Decebalus see Brandis, RE, col. 2247 and CIL, VI, 25572.
60. R. Vulpe, Histoire ancienne de la Dobroudja, Buc., 1938, p. 190, CIL, III, 14214. Gr. Tocilescu, Fouilles et recherches, p. 2909, no. 35.
61. T. Fl. Castus at Tomis (Gr. Tocilescu, Fouilles et recherches, no. 43, p. 213); Valeria Casta, at Capidava (Gr. Florescu, Capidava, I, no. 4); at Rasova, near Sacidava, Aelius Castus ex-duumvir at Tropaeum Traiani (Studii Clasice, 5, 1968, p. 294).
62. RIAF, 5, 1903, tom. IX, p. 45, no. 58 (Tropaeum).
63. Ibid., p. 48, no. 62.
64. A parallel (as regards duumvir) in a Tropaeum Traiani inscription "ordo splendidissima municipii Tropaei per ... duumveros...". Cf. CIL, III, 12461.
65. At Meidanchioi, near Noviodunum, a tabula ansata ("templum a solo fecerunt").



Fig. 1



Fig. 2

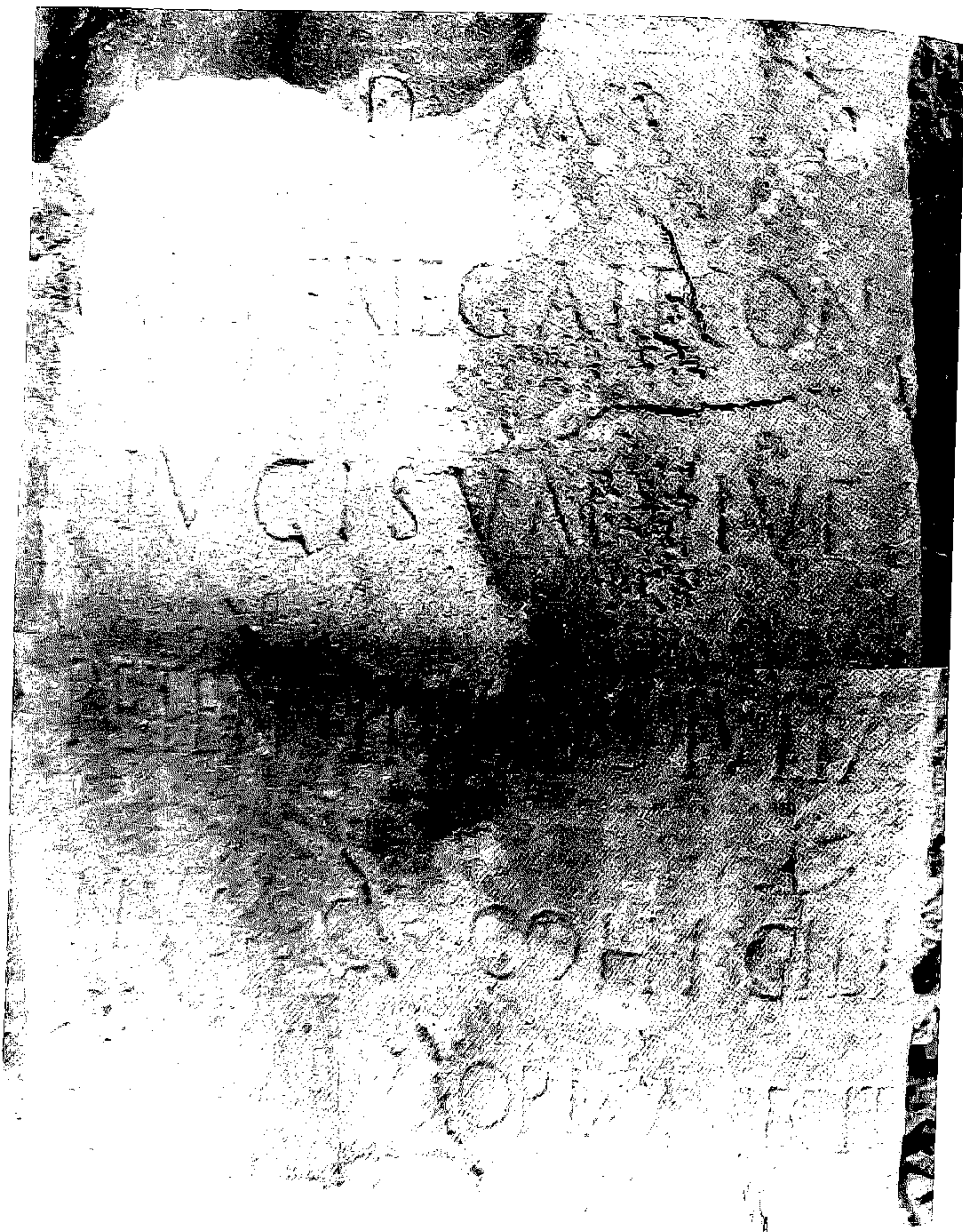


Fig. 3

D M
 VALERIEGAIECON
 IVGISVAEVIVE
 PETENTIIVLIVSIVLIA
 NVSSC COHICILI
 CVM MEMORIAMFECIT

Fig. 4

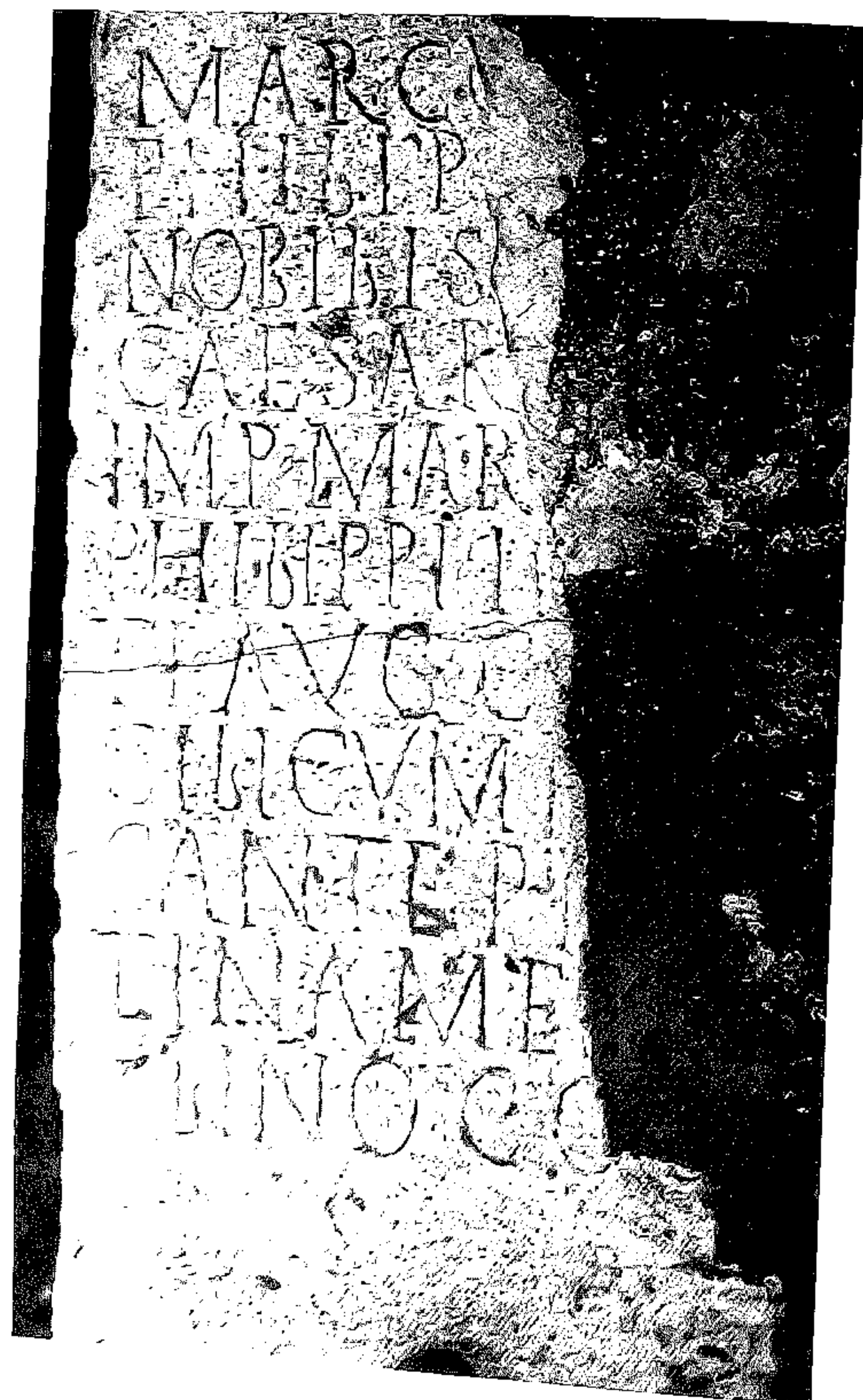


Fig. 5

MARCO IVL
 PHILIPPO
 NOBILISSIMO
 CAESARI FIL
 IMP MAR IVL
 PHILIPPI INVIC
 TI AVG COHI
 CILICVM DEDI
 CANTE PRAS
 TINAM ESSA
 LINO CONS

Fig. 6

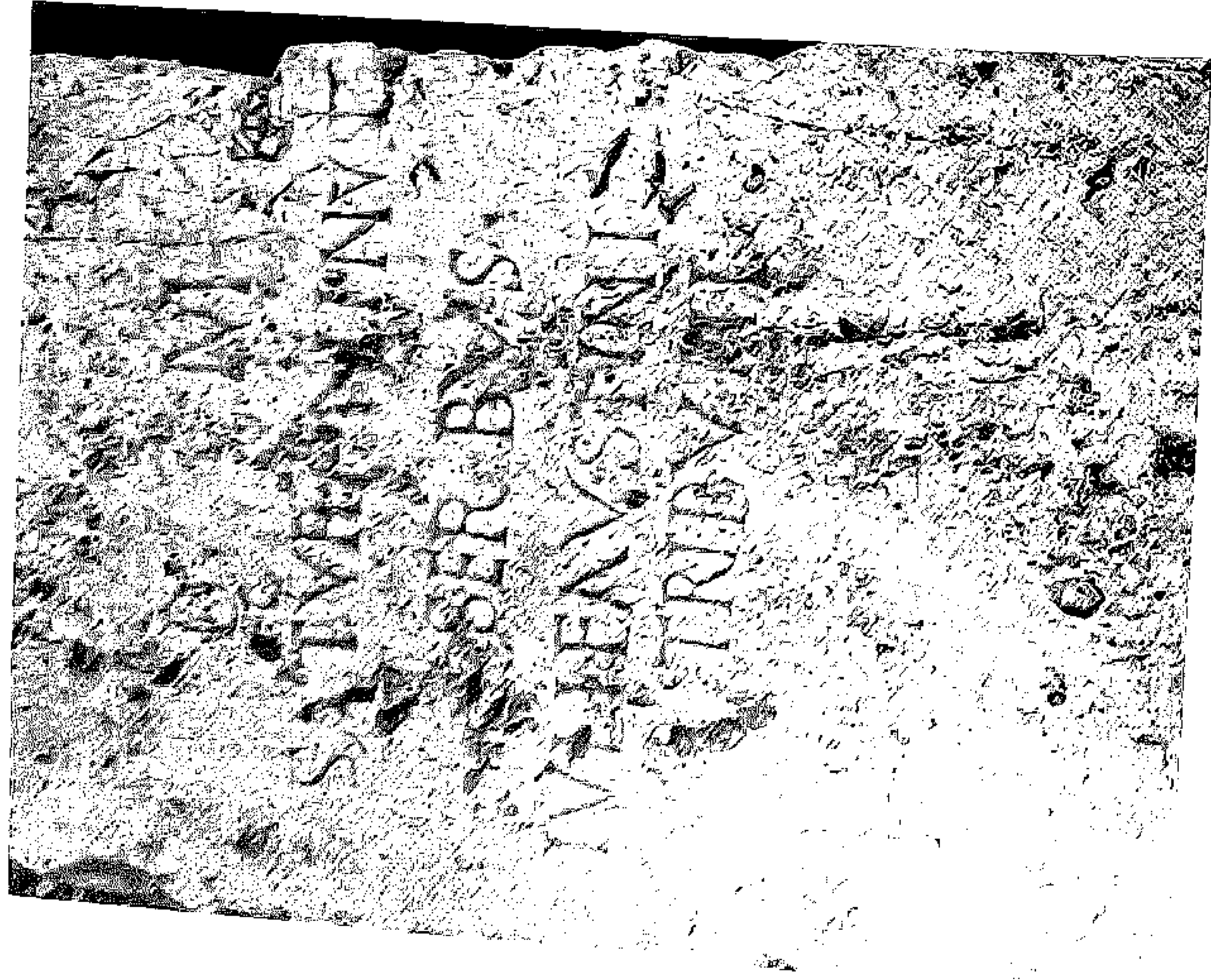


Fig. 7

D M
SATVRININVS
SERBVS
INLIVSTINI
TRIBVNI

Fig. 8

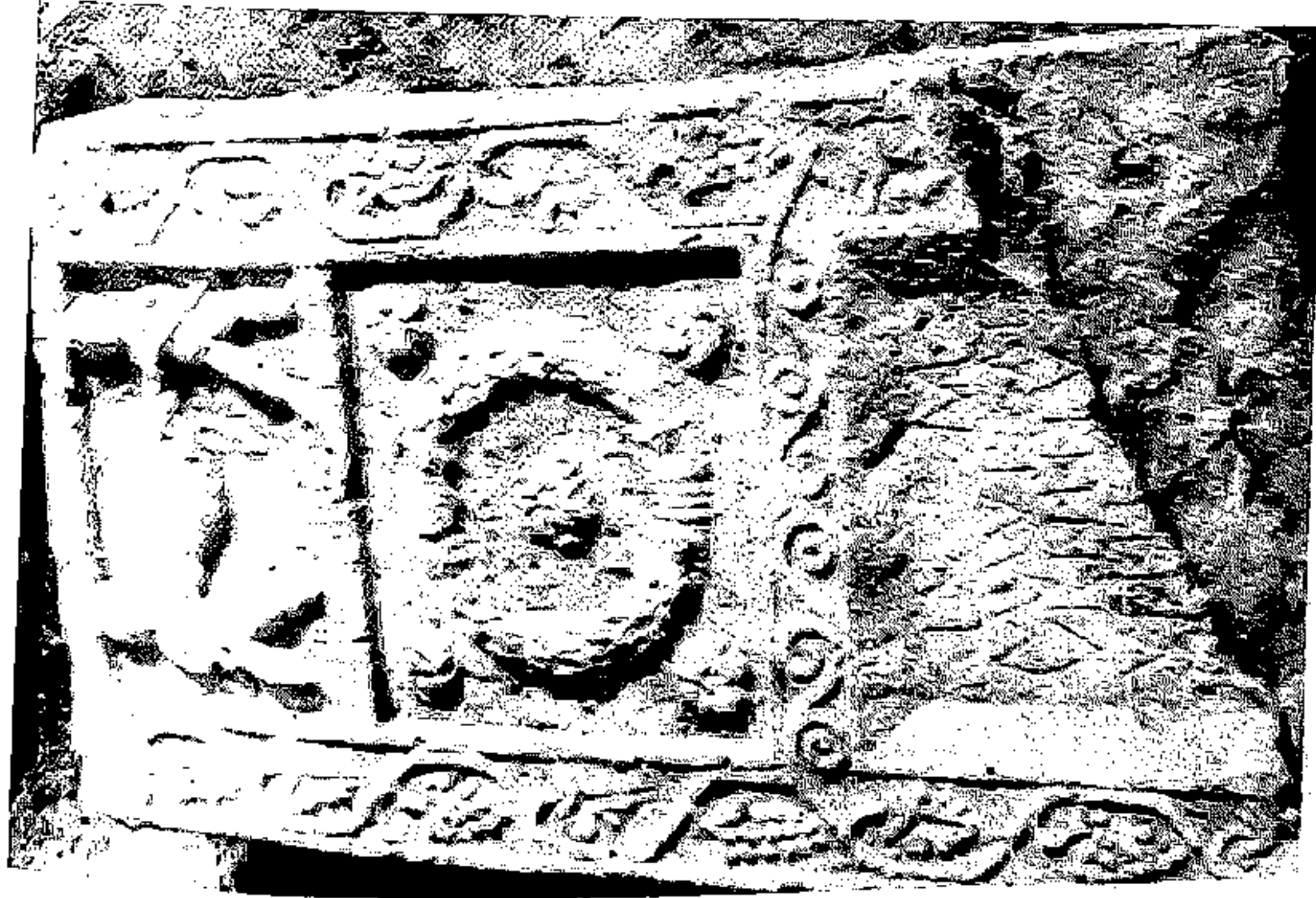


Fig. 9

D M
MAVRSAT
VRNINVS
VETIF
CI

Fig. 10



Fig. 11



Fig. 12



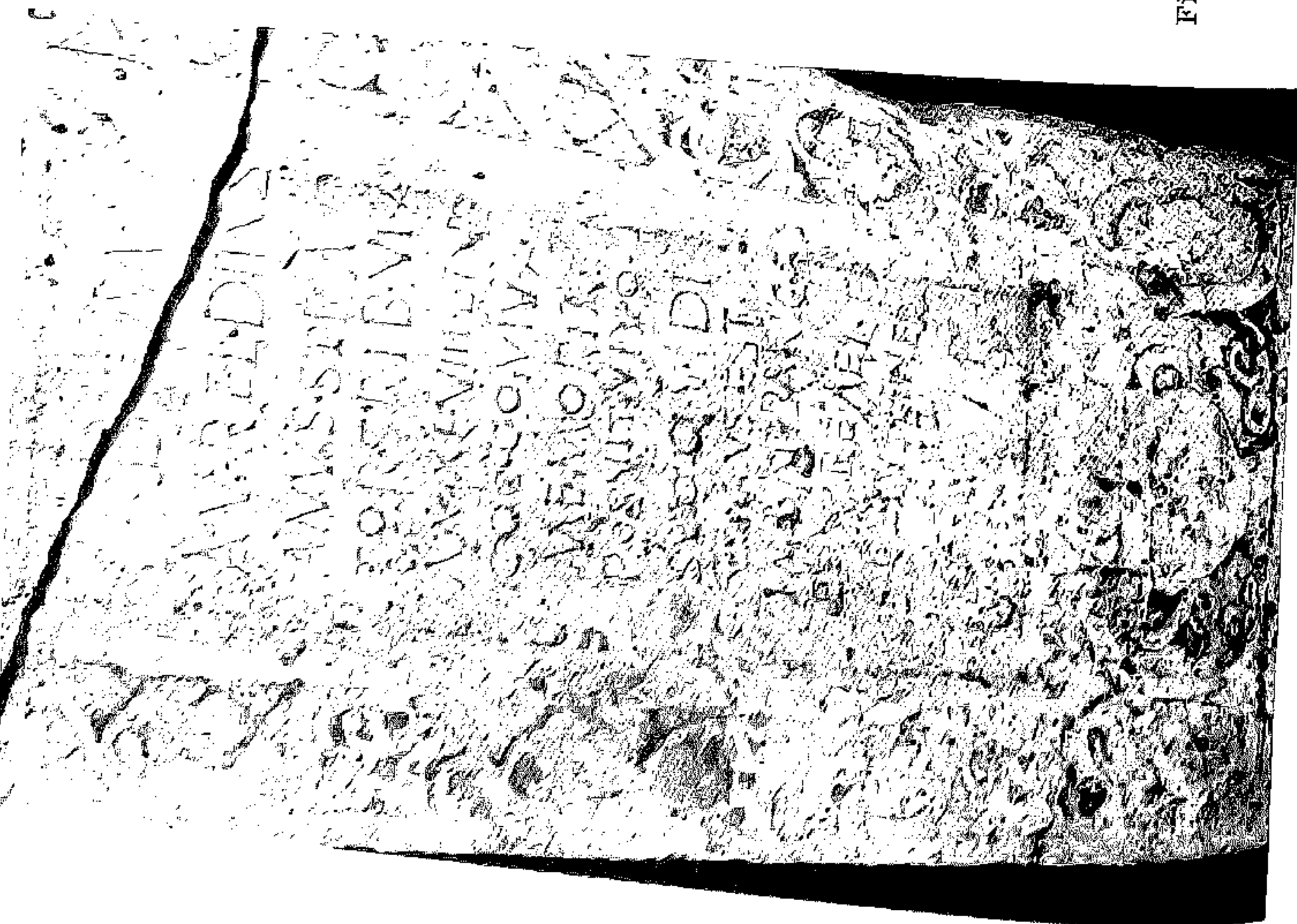
Fig. 13

Fig. 14



Fig. 15

Fig. 17



D M
 AVRELDITVS
 ANVS STRA
 TORTRIBVIX
 ANX LVIII ETCL
 COCCOMIVX
 MEMORIA
 POSVIT VIVO
 SVO Q VIDI
 VS EST
 IN BARBARICO
 ET AVRE AEL
 FIL EIVSE THER

Fig. 16

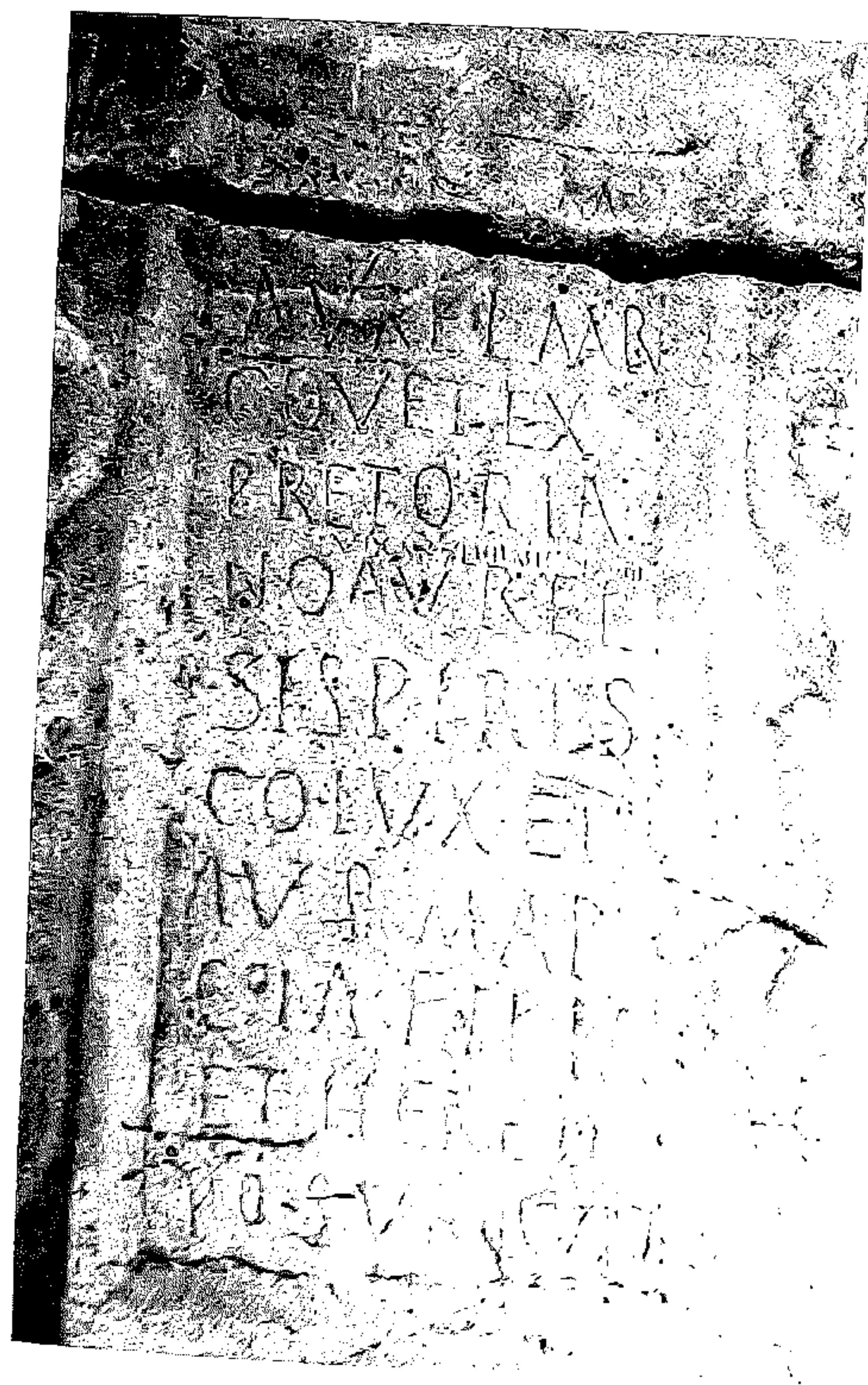


Fig. 18.

D M
 AVREL MAR
 COVET EX
 PRETORIA
 NOAVREL
 SISPIRIS
 COIVX ET
 AVR MAR
 CIA FILIA
 ET HERED
 POSVE RVN

Fig. 19



Fig. 20.

D M
 DIVRDANO
 DE CIBALIVE
 TER ANQPRI
 SCVS FILIVS
 ET FELIX LIBER
 TVS BENEME
 RENTI POSV
 ERVNT

Fig. 21



Fig. 22

D M
 VALCAS
 TVS CORN
 VIXAN XLIII
 AEL SABINA
 CONIVXET
 VAL ETERN
 LIS
 HEREDES
 P M

Fig. 23

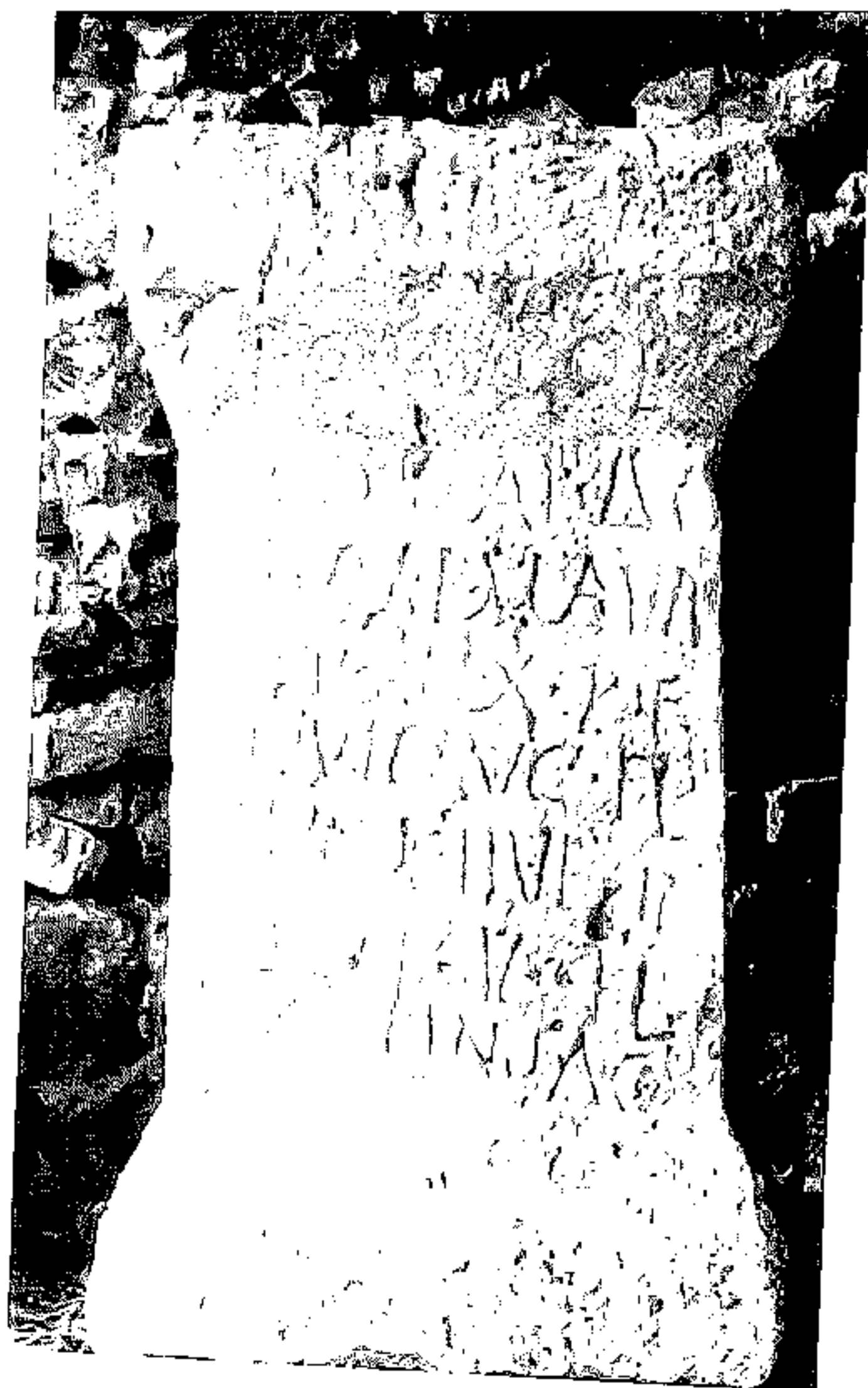


Fig. 24

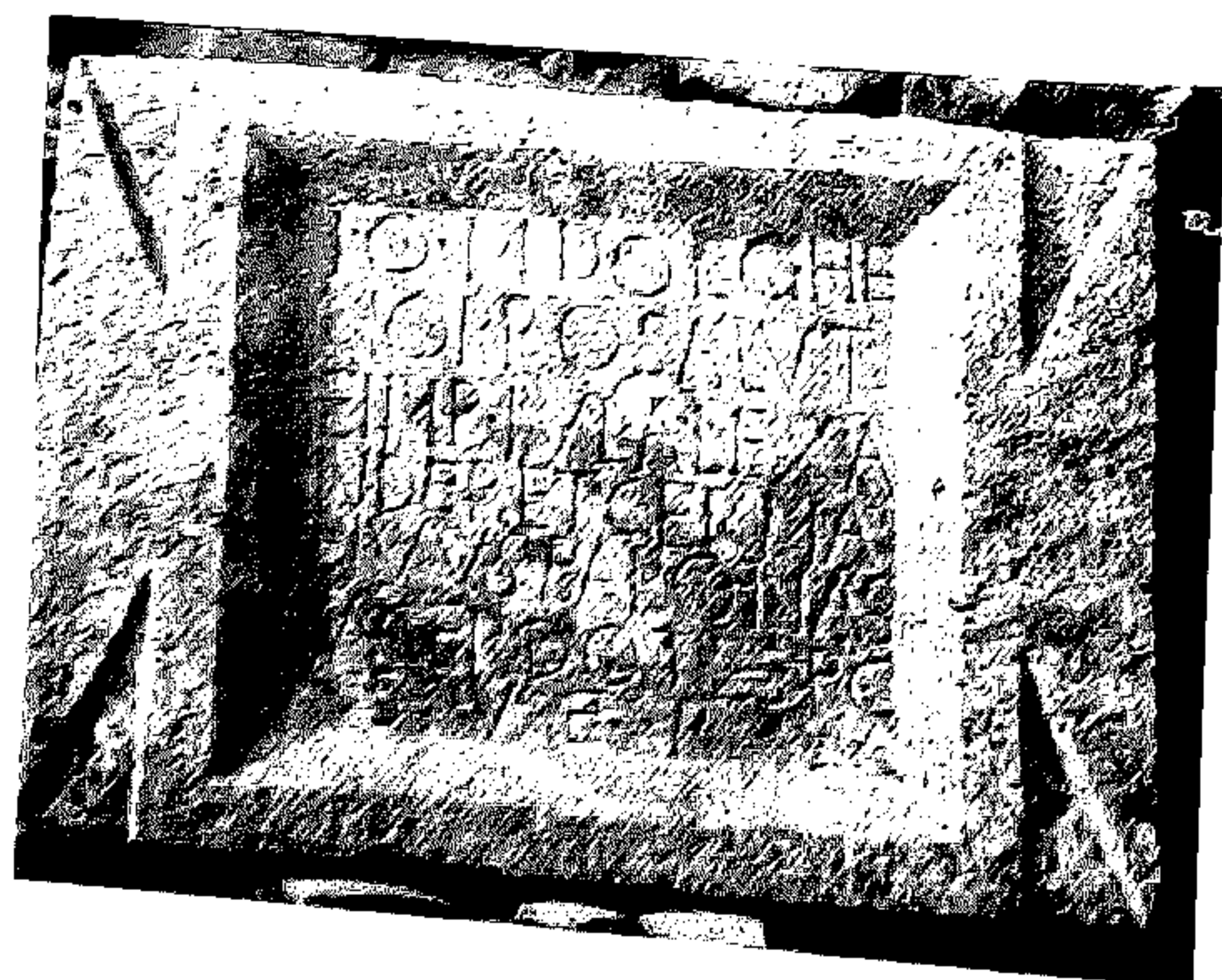


Fig. 25